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ABSTRACT

This report describes variables that differentiate the classrooms of more effective and less effective teachers. Teacher effectiveness is defined as the ability of second- and fifth-grade teachers to teach specially constructed reading and mathematics curriculum units over two weeks. Twenty more effective and twenty less effective teachers were visited for five days by specially trained ethnographers. Protocols of reading and mathematics instruction were prepared by the ethnographers. These protocols were rated, and variables that distinguished between teachers of differential effectiveness were identified. Twenty-one of these variables were found to distinguish between the more effective and the less effective teachers in their teaching of second-grade reading, second-grade mathematics, fifth-grade reading, and fifth-grade mathematics. An additional 40 variables also showed some ability to differentiate between more effective and less effective teachers, but did not generalize across grade levels or subject matter areas. The use of a known sample of teachers varying in effectiveness and the ethnographic procedures were both methods found to be very useful in the study of classroom teaching. (Authors)

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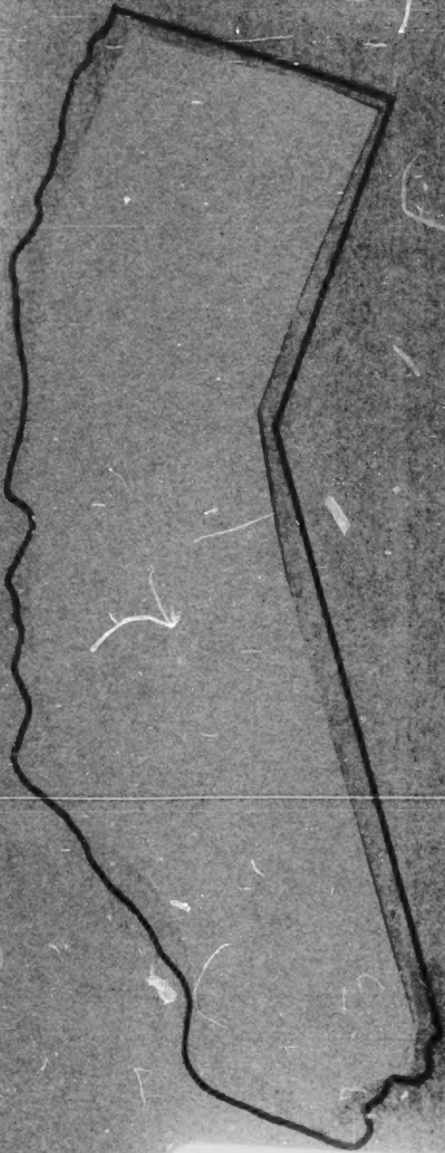

BTES

BEGINNING TEACHER EVALUATION STUDY

Technical Report Series

Technical Report #75-10-5

Special Study A:

An Ethnographic Study of the Forty Classrooms of the Beginning Teacher Evaluation Study Known Sample

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Special Study A:

An Ethnographic Study of the Forty Classrooms of the Beginning Teacher Evaluation Study Known Sample

by

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Submitted to

California Commission for Teacher Preparation and Licensing
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PREFACE

This is one of a series of reports by the Far West Laboratory for Educational Research and Development concerned with the study of teacher effectiveness. Under contract to the California Commission for Teacher Preparation and Licensing, with funding provided by the National Institute of Education, the Laboratory is studying teachers in second and fifth grade classes in order to identify teacher behavior and classroom qualities that are related to reading and mathematics achievement.

The California Commission is the agency charged with certifying the appropriateness of teacher training programs throughout the state. To carry out its duties the Commission needs information about what teacher behaviors are related to student outcomes. This information will then be used jointly by the Commission and the state institutions that it certifies in order to better insure that beginning teachers receive training in areas that have been empirically demonstrated to affect student learning. To obtain the information they need, the Commission has undertaken a multi-year research effort titled the Beginning Teacher Evaluation Study (BTES).

In this report the research team headed by Dr. Tikunoff analyzed the classrooms of a specially selected sample of teachers. These forty teachers were chosen because they varied in their measured effectiveness as teachers. The procedure used in selecting these teachers is important to understand because it affects the interpretation of the data presented and restricts the generalizability of the findings reported in this document.

Two-hundred teachers were recruited from thirteen school districts in the State of California. Half were second grade teachers and half were fifth grade teachers. Each teacher taught two Experimental Teaching Units (ETUs) of two weeks duration each. The second grade ETU in reading centered on using word structure as a tool for comprehension; reading for comprehension in context; following directions and sequencing. The second grade ETU in mathematics focused on the concept of measurement (conservation) and the arithmetic operations pertaining to it. The fifth grade ETU in reading focused on reading in larger units (phrases, sentences, paragraphs). The fifth grade ETU in mathematics centered on the concept of probability and the arithmetic operations pertaining to the unit.

Each ETU included an introduction to the teacher giving a rationale for the unit; performance objectives that were tied to the tests for the unit; pretests for the students; instructional materials and activities for the teacher to choose from; and a posttest for students. The ETUs conformed to accepted state curriculum objectives for grades two and five, but were in areas not ordinarily stressed by teachers in those grades. In the second grade, instruction took about twenty minutes a day for two weeks, and in the fifth grade instruction took about forty-five minutes a day for two weeks. The ETUs were administered sequentially.

After the test data were collected, classroom posttest scores were regressed on pretest scores for each ETU, separately for each grade level. Based on class pretest means three strata were created so that the regressions were run separately for low, middle and high achieving classrooms within subject matter area and grade level. From the initial sample of one hundred teachers at each grade level, ten classrooms with high residual gain scores in reading, mathematics, or both areas, were chosen. Ten classrooms with low residual gain scores in reading, mathematics, or both areas, were also chosen. These classrooms came from all three pretest strata. The ten teachers with classrooms that showed higher than predicted posttest means were designated as "more effective" teachers. The ten teachers associated with classrooms that showed lower than predicted posttest means were designated as "less effective" teachers. It must be noted that these designations are relative and that the teachers in this study were a volunteer sample. Our procedures can only allow us to talk of more and less effective teachers, as measured in the manner described, and in no way implies that these teachers are "good" or "bad" in their regular classroom performance.

The ETUs and associated tests were designed to identify a sample of teachers who varied in measured effectiveness when teaching a common curriculum, to common objectives, for controlled amounts of time. On the basis of residual gain scores over the two weeks of teaching in each ETU, ten more and ten less effective teachers at each grade level were identified and constituted the Known Sample of teachers that were used for intensive analysis of classroom practice. (For more complete data about this sample, see Berliner, D., Developing a sample of teachers for intensive analysis of classroom teaching. San Francisco: Far West Laboratory for Educational Research and Development; Beginning Teacher Evaluation Study, 1975 [in press].)

This report describes one of three separate studies of these specially selected classrooms. As in other documents of the Far West Laboratory the views presented in this report are not necessarily endorsed either by the Commission on Teacher Preparation and Licensing or the National Institute of Education. Clearly the data to be presented is restricted in generalizability due to the methods used for teacher selection and the volunteer nature of the sample. Our findings describe teaching behaviors and classroom characteristics which differentiate more and less effective teachers. But before these data are accepted as trustworthy, *confirmation by other researchers, and replication by our own staff, is mandatory.*

This unusual research effort applied new methodology and required the thinking and efforts of many people. We wish to express gratitude to the following for their creativity, their time, and especially for their interest in making this study a success: to the California Commission for Teacher Preparation and Licensing's subcommittee on Evaluation of Teaching and to Dr. Marjorie Powell of the Commission staff for their advice and encouragement; to the forty teachers and their classrooms which comprised the Known Sample for volunteering to participate in the study and for allowing ethnographers to observe their classrooms; to the three schools that provided onsite experience for ethnographers during their training (Audubon School, Foster City; Marshall Elementary School, Castro Valley; Old Mill School, Mill Valley); to Patricia Avila-Hails, Ned Flanders, Keith Jones, Jean Meadowcroft, Karen McDonald, and Shirley Swallow for their insight and creativity in generating the 61 Dimensions from the protocols of the study.

Special thanks are due those people who individually helped to shape the study by sharing the benefits of their experience and by giving so generously of their time and, most importantly, their ideas: to Richard Marliave for consistently wise and accurate psychometric guidance; to Jeremy George for coordinating the ethnographers in the field during data collection, for monitoring the transcription of the protocols, and for giving unselfishly his own personal time; to Betty Ward for her wise counsel and insight throughout the study; to Jeffrey Moore for his creative assistance with statistical analysis of the data; to Peter Enemark for conducting a literature review; and to Norman Trondsen for his assistance during data analysis.

And most of all, for thoughtfulness, care, creativity, and resourcefulness, Dr. William J. Tikunoff deserves commendation. His leadership made this complex study manageable, and his interpretations of the data make the findings more comprehensible.

David C. Berliner
Principal Investigator
Beginning Teacher Evaluation Study
October 1, 1975

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OVERVIEW

Special Study A of the Beginning Teacher Evaluation Study was designed to obtain qualitative information about the effective teaching of reading and mathematics in the second and fifth grades. Using a case study approach derived from social anthropology, it sought to accomplish four major objectives:

- To study the forty classrooms which compose the Known Sample of the Beginning Teacher Evaluation Study, utilizing sensitive observers trained in ethnographic data collection methodology derived from the discipline of social anthropology.
- To identify teacher characteristics, student characteristics, and instructional characteristics inherent in the teaching/learning of reading and mathematics at the second and fifth grade levels that explain previously determined characteristics of the Known Sample, using as a framework common organizing concepts derived from social anthropology.
- To generate protocols, which in effect are case studies, for each of the forty classrooms in the Known Sample and to subject these protocols to review by experts from a variety of disciplines to analyze and to re-analyze the raw data in order to explain previously determined characteristics of the Known Sample.
- To develop, pilot test, and refine a methodology that applies the technology of the social anthropological ethnographer to a Known Sample of classroom instructional settings over a relatively short period of time in order to offer such methodology for either Phase III-B of the BTES or other educational research.

This overview summarizes the full report of Special Study A, discussing in turn (1) background of the research methodology, (2) data collection, (3) data analysis, (4) results, and (5) conclusions and recommendations.

Background of the Research Methodology

The research methodology used in Special Study A is variously known as ethnography, "micro-ethnography," anthropological field methodology, and nonparticipant observation. Essentially, it differs from the traditional methods employed by educational researchers in that, rather than focusing solely on quantitative evidence derived from a "psycho-statistical model," it utilizes trained observers to gather qualitative data by direct observation of human activity in an ongoing, naturalistic fashion. This data is recorded by any of a number of techniques, resulting in a "protocol" of what occurred.

Unlike most research methodologies drawn from experimental psychology, ethnographic research seeks to develop hypotheses, rather than test them. While the ethnographer usually enters a field situation with some tentative assumptions to help him organize his observations, he does not take with him hypotheses to be verified or disproved. Instead, hypotheses are formulated after the data collected from observation have been analyzed. The ethnographer's hypotheses are thus evolved from observed, recorded data.

This ethnographic approach was used in Special Study A for several reasons. First, it permits the study of teaching within its context, rather than as isolated acts. Second, it eliminates the need to establish some degree of experimental control in which the researcher imposes knowledge or skills that are to be taught and learned. Third, it permits the collection of qualitative data about aspects of classroom activity that cannot be subjected to measurement by the more usual paper and pencil tests or behaviorally defined coding systems. Fourth, by using a direct observer embedded in the ongoing process of the classroom as the data collection instrument, it can obtain information over a reasonably lengthy period of teaching/learning time.

Data Collection

Data collection was performed by a group of twelve ethnographers recruited from graduate departments of anthropology and sociology at universities in southern and northern California. They completed a three-week training program primarily devoted to developing their ethnographic data collection skills through seminars and field experience in cooperating schools. Training emphasized observational skills, notetaking procedures, dictation of notes onto cassette tapes for transcription into typewritten protocols, general background information about second and fifth grade classrooms, and observer behavior in the classroom. During their field experience, the ethnographers observed in classrooms, took notes, and dictated protocols as they were to do during the actual study. These protocols were analyzed and critiqued by the training staff, both as a training mechanism and as a check on the ethnographers' ability to collect data for the study.

Observations were conducted in the classrooms of forty teachers from the Known Sample selected in the Beginning Teacher Evaluation Study (BTES). Half were second grade teachers and half were fifth grade teachers. Among the teachers at each grade level, ten were less effective (as measured in the BTES)* and ten were more effective. Neither the ethnographers nor the staff directly connected with Special Study A knew which teachers had been designated as more and less effective.

Assignment of ethnographers to classrooms was made without any systematic bias. Consideration was given to geographic convenience, to insuring that each ethnographer observed at least one more effective and one less effective teacher, and to insuring that each ethnographer observed at only one of the two grade levels.

Each of the forty teachers in the Known Sample was observed continuously for one week by an ethnographer. During the teaching of mathematics and reading notes were taken, dictated onto tape cassettes the same day, and later transcribed. These resulted in a set of formal protocols, in most cases five for reading and five for mathematics for each teacher. Figure 1 illustrates the first page of such a protocol. During other parts of the school day ethnographers observed without taking notes, talked informally with teacher, and examined instructional materials, later that day developing this information into informal protocols. At least three informal protocols were produced for each teacher. Finally, a summary profile was developed for each teacher, based on the week's observations. Along with a map of the classroom, these three types of data--formal protocols, informal protocols, and summary profile--became what was called the data set for a teacher.

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* Measured effectiveness was based on adjusted gains of learners on outcomes derived from the teaching of two- week Experimental Teaching Units (ETU), one in mathematics and one in reading for each grade level. In this way the curriculum taught was held constant.

Data Analysis

The forty data sets produced by classroom observation of the forty teachers from the Known Sample was analyzed in two phases. First, the protocols were read by a team of six people to generate a set of dimensions that discriminated between the protocols for a given pair of teachers--one more effect and one less effective. Second a team of raters compared pairs of protocols, one for a more effective teacher and one for a less effective teacher, using a rating instrument developed to incorporate the dimensions that had been generated during the first phase of analysis.

Dimension generation. A six-person team, representing backgrounds in educational research and psychology, the schools, and anthropology and sociology, performed the first phase of data analysis--dimension generation. Over a period of nine days, team members individually read pairs of randomly assigned protocols. In each pair, one protocol was

FIGURE 1

Excerpt from a Protocol Produced for Special Study A

Protocol Number: 06
Name of Researcher: Gail
Date of Observation:
Subject of Observation: 2nd Grade Class, Open Class-
room, with two team teacher and two other adults, this
is a joint observation with Elizabeth. I will be
observing two reading groups today, simultaneously,
including 9 children. Out of the nine children, 2 are
girls, / are boys.

8:30 Noise level 2 At 8:30 the noise level is 2. The children have just been
let into the classroom, taking their coats off and
wandering around the room. Several boys are in the corner
fighting, and some girls are sitting on the floor
playing a puzzle. The teacher is walking back and forth
in the back of the classroom not attending the children.
The noise continues and the children are running
around. There is much confusion in the room. Two teachers
8:35 stand at the desk talking to one another. At 8:35,
Mrs. Tyler leaves the room. The team teacher
stays seated behind the classroom at her desk. At 8:40
Mrs. Tyler comes back into the room. She walks to the
desk at the far left hand side of the classroom,
which is a round table, and sits on the edge. She says
"Blue Group, get your folders and go up in the front.
Green Group, come here." Noise level drops to 1, and
the children begin to follow her orders. She says,
"Anybody loose a quarter ." No one responds, and she
repeats the question again with irritation in her voice.
She says I know someone found , someone lost a quarter
because it was found in the coat room. Look in your
pockets and see." No one says anything. She now
stands up and pulls a pile of workbooks from across the
table over to her. They are the ________ reading work-
books. She opens one of them on the top and says,
"Ah Daniel!" She says this with a loud sharp voice.
She continues, "Your work yesterday was not too bad
but you need some work. Evidently there are still some
words you don't understand." She thumbs through the rest
of his lesson. Danny is standing at the outside of
the circle around her, not listening to what she is saying.
Mrs. Tyler now stands and gives instructions to the Green
Group. She tells them to go through 8 through 13, reading
the two stories between those pages and to go over the
work in the workbooks that she is about to give back.
She tells them that they may seat any place but
not together and she says, "And I don't want any funny
business." She now opens the next workbook which is
Nicolle's. She tells Nicole that she is having the
same problem that Danny is having without specifying
further. Nicole looks up at her with an expectant look
on her face. She then looks at a third book and says
Michelle you're having the same problem. She says,
"Snatch means to grab. Beach, what does it mean? Michelle
doesn't answer. She has her finger in her mouth and looks
anxious. The teacher closes the workbook and pushes it
to Michelle. Michelle takes it and walks away, with
Nicole. Teacher then opens the next workbook and says,
Mike, I don't appreciate all these circles. She points

for a more effective teacher and one was for a less effective teacher. Their task was to identify as many teacher, student, and instructional characteristics as possible that discriminated between the two classrooms represented by each pair of protocols. The characteristics were recorded on cards with identifying information and then discussed and clarified through team discussion.

A total of 211 teacher, student, and instructional characteristics was generated by this activity. This list was then refined by eliminating duplications, combining similar characteristics when appropriate, and clarifying descriptions. The result was a list of 61 Dimensions, each of which was labeled, defined by what it was and was not, and illustrated by examples. Table 1 lists these dimensions with abbreviated definitions.

Comparison of classrooms in the Known Sample. In the second phase of data analysis, classrooms of the Known Sample were compared. Twenty raters, representing diverse backgrounds and experiences, were trained for this purpose. After familiarization with the dimensions and practice in coding illustrative protocols, the raters reached 100% agreement on 50 of the 61 Dimensions when coding a common pair of protocols. Following additional training, they reached a minimum level of 90% agreement on the remaining 11 dimensions. This was considered a sufficient level of agreement to begin comparison of the Known Sample protocols.

The comparison instrument listed the 61 Dimensions, each with a scale from 1 (less evidence of a dimension) to 7 (more evidence of a dimension). Raters were given randomly assigned pairs of protocols (one for a more effective and one for a less effective teacher) and required to mark both on the scale for each dimension. The paired protocols were divided into four groups--second grade reading, second grade mathematics, fifth grade reading, and fifth grade mathematics--and 36 pairs of protocols

TABLE 1

67 Dimensions for Comparing Known Sample Classrooms for Special Study A

1. abruptness (T): unanticipated "switching" by teacher, e.g., from instruction to classroom management, to behavior management, to instruction, to behavior management.
2. accepting (T): teacher reacts constructively (overt, verbal, non-verbal) to students' feelings and attitudes
3. adult involvement (C): adults other than the teacher are allowed to instruct.
4. attending (T): teacher actively listens to what a student is saying, reading, reciting.
5. awareness of developmental levels (T): teacher is aware of a student's emotional, social educational needs and therefore assigns tasks appropriate for these.
6. being liked (T). teacher seeks approval from students in an ingratiating manner, often at expense of instruction.
7. belittling (T): teacher berates child in front of others.
8. competing (T): competition, outdoing others is emphasized by the teacher.
9. complimenting (control) (T): teacher's action reinforces student(s) whose behavior is in the right direction.
10. consistency of message (control) (T): teacher gives a direction or a threat and follows through with it.
11. conviviality (C): warmth, family-like quality to classroom interaction; good feelings between teacher-students, students-students.
12. cooperation (S): students cooperate with other students, teacher; willingness on part of students to help each other.
13. defending (T): teacher defends a student from verbal or physical assault by another.
14. defiance (S): a student's open resistence to teacher direction; refuses to comply.
15. democracy (T): teacher provides opportunities to involve students in decision-making re class standards, instruction, procedures, etc.
16. distrust (T): teacher expresses doubt for validity of student's work or behavior.
17. drilling (T): teacher emphasizes regularization, rote memory, retrieval of facts on part of student learning.
18. encouraging (T): teacher admonishes student effort in order to motivate them.
19. engagement (S): students express eagerness to participate, appear actively, productively involved in learning activities.
20. equity (T): teacher appears to divide her time, attention equally among all students.
21. ethnicity (T): teacher expresses positive, informative comments about racial, class, ethnic contributions; encourages class discussion about cultural contributions.
22. excluding (T): teacher banishes student from class activity--to corner, cloakroom, out of room, etc.
23. expectation (T): teacher attributes scholastic problems or predicts success for student on basis of past information or student's "background."
24. filling time (T): teacher fills "empty" time periods with "busy work".
25. flexibility (T): teacher adjusts instruction easilty to accommodate change in plans, time schedule, absenteeism, or change of students' behavior.
26. gendering (T): teacher assigns roles on basis of male or female (boy-girl) and reinforces these.
27. harrassing (T): teacher taunts, pesters, nags, hazes, "puts down," or physically hits a student.
28. ignoring (T): teacher appears to deliberately "not hear" or "not see" so as to treat a student as being invisible.
29. illogical statements (T): teacher makes a statement whose consequences would be ridiculous if carried out.
30. individualizing (T): teacher assigns to each student learning tasks designed to match his/her individual abilities and interests.

TABLE 1

61 Dimensions for Comparing Known Sample Classrooms
for Special Study A (continued)

31. job satisfaction (T): teacher seems to enjoy teaching.

32. knowledge of subject (T): teacher seems confident in teaching a given subject and demonstrates a grasp of it.

33. manipulation (S): student is able to get on demand a desired response from the teacher.

34. mobility (S): students move freely and purposefully around the room; teacher allows students to work at places other than at their assigned seats.

35. mobility (T): teacher moves spontaneously about the room.

36. modeling/imitation (S): students copy teacher's behavior, and are encouraged to do so by teacher.

37. monitoring learning (T): teacher checks in on student's progress regularly and adjusts instruction accordingly.

38. moralizing (T): teacher emphasizes goodness vs. badness, verbally expresses ideal behavior model.

39. oneness (T): teacher treats whole group as a "one" often in order to maintain peer control.

40. openness (T): teacher verbally acknowledges to students feelings of anger or frustration, admits mistakes, expresses need for self-improvement.

41. open questioning (T): teacher asks questions which call for interpretive responses and are open-ended.

42. optimism (T): teacher expresses positive, pleasant, optimistic attitudes and feelings.

43. pacing (T): teacher appears to perceive learning rate of students and adjusts teaching pace accordingly.

44. peer teaching (S): students help other student instructionally and are encouraged to do so, whether "olders" with "youngers" or students of same age group.

45. personalizing (T): teacher calls on students by name.

46. policing (T): undue emphasis on quietness, orderliness, good behavior, and teacher spends disproportionate time with monitoring student behavior and controlling for discipline.

47. politeness (T): teacher requests rather than commands, uses "please" and "thank you", encourages same in student-student interaction.

48. praising (T): teacher verbally rewards student.

49. promoting self-sufficiency (T): teacher encourages students to take responsbility for their own classwork.

50. recognition-seeking (T): teacher calls attention to self for no apparent instructional purpose.

51. rushing (T): teacher does not give students adequate response time, or answers for them; is tied to a pre-set time limit, and hurries students to finish work.

52. sarcasm (T): teacher responds in a demeaning manner, uses destructive/cutting remarks.

53. shaming (T): teacher instills guilt in students for their behavior in order to establish control.

54. signaling (control) (T): teacher uses body language, non-verbal signals to change students' behavior.

55. spontaneity (T): teacher capitalizes instructionally on unexpected incidents that arise during class time.

56. stereotyping (T): teacher labels and judges students by socio-economic, ethnic, or racial characteristics.

57. structuring (T): teacher prepares students for lesson by reviewing, outlining, explaining objectives, summarizing.

58. teacher made materials (T): teacher provides instructional materials other than textbooks, and arranges for their use by students.

59. time fixedness (T): teacher emphasizes promptness, begins and ends activities by clock rather than by student interest.

60. waiting (T): after asking a question, teacher waits in silence for student responses or waits in silence after student response before reacting.

61. warmth (T): teacher seeks contact with students, talks with them shows affection toward them.

were rated from each of the four groups. While some raters knew that pairings of protocols were based on teacher effectiveness, none knew which teachers were identified as more and less effective.

Results

Table 2 reports results for the 61 Dimensions. On this table a plus (+) indicates that the dimensions generation team viewed the dimension as positive; it would therefore be expected to occur more frequently in the classrooms of the more effective teachers. A dimension preceded by a minus (-) was viewed as negative. Five dimensions preceded by a plus and minus (±) were viewed as neutral. These results were analyzed and organized in several ways.

Only brief highlights of the results are summarized here.

Twenty-one dimensions were found to be generic across both grade levels and both subject areas. These dimensions, which had a p value of .0475 or less, discriminated between more and less effective teachers both by grade level and by subject. (See Table 3.)

Of these generic dimensions, six may be categorized as describing classroom climate: adult involvement (3), conviviality (11), cooperation (12), defiance (14, a negative dimension), engagement (19), and promoting self-sufficiency (49). They are descriptive of a warm, positive environment in which students and teacher share a common, convivial spirit and cooperate with each other. Students are engaged, working and playing with purpose, and are therefore not defiant of adults. Teachers share instructional tasks with other adults and encourage students to assume increasing responsibility for their behavior and for working at instructional tasks.

Eight of the generic dimensions are descriptive of teacher instructional moves: abruptness (1), attending (4), filling time (24),

TABLE 2

61 Dimensions from Special Study A: Rating Results on Paired Comparisons

Dimension	SECOND GRADE MATHEMATICS			SECOND GRADE READING			FIFTH GRADE MATHEMATICS			FIFTH GRADE READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(-) 1. abruptness (T)	13	23	.0475	27	9	.0013	11	25	.0099	10	26	.0035	.81
(+) 2. accepting (T)	26	10	.0035	25	11	.0099	24	12	.0228	26	10	.0035	1.00
(+) 3. adult involvement (S)	28	8	.0003	23	13	.0475	23	13	.0475	23	13	.0475	.75
(+) 4. attending (T)	26	10	.0035	30	6	.00003	25	11	.0099	25	11	.0099	.81
(+) 5. awareness of developmental levels (T)	23	13	.0475	29	7	.0002	22	14	.0918	26	10	.0035	.88
(-) 6. being liked (T)	11	25	.0099	15	21	.1587	9	27	.0013	14	22	.0918	.69
(-) 7. belittling (T)	11	25	.0099	12	24	.0228	12	24	.0228	12	24	.0228	.81
(±) 8. competing (T)	19	17	.7414	12	24	.0456	14	22	.1836	14	22	.1836	.81
(∓) 9. complementing (control) (T)	20	16	.2514	26	10	.0035	23	13	.0475	19	17	.3707	.75
(+) 10. consistency of message (control) (T)	26	10	.0035	24	12	.0228	28	8	.0003	27	9	.0013	.69
(+) 11. conviviality (S)	25	11	.0035	30	6	.00003	23	13	.0475	27	9	.0013	.75
(+) 12. cooperation (S)	26	10	.0035	29	7	.0002	24	12	.0228	27	9	.0013	.81
(+) 13. defending (T)	19	17	.3707	21	15	.1587	17	19	.3707	23	13	.0475	.63
(-) 14. defiance (S)	11	25	.0099	4	32	.000003	13	23	.0475	7	29	.0002	.81
(+) 15. democracy (T)	25	11	.0099	23	13	.0475	22	14	.0918	26	10	.0035	.75
(-) 16. distrust (T)	10	26	.0035	12	24	.0228	14	22	.0918	17	19	.3707	.88
(+) 17. drilling (T)	14	22	.1836	13	23	.0950	19	17	.7414	12	24	.0456	.69
(+) 18. encouraging (T)	28	8	.0003	30	6	.00003	21	15	.1587	25	11	.0099	.75
(+) 19. engagement (S)	27	9	.0013	28	8	.0003	23	13	.0475	30	6	.00003	.88
(+) 20. equity (T)	23	13	.0475	27	9	.0013	22	14	.0918	26	10	.0035	.94
(+) 21. ethnicity (T)	22	14	.0918	26	10	.0035	18	18	.5000	25	11	.0099	.69
(-) 22. excluding (T)	11	25	.0099	16	20	.2514	13	23	.0475	13	23	.0475	.75
(-) 23. expectation (T)	11	25	.0099	13	23	.0475	14	22	.0918	14	22	.0918	.75
(-) 24. filling time (T)	11	25	.0099	9	27	.0013	10	26	.0035	9	27	.0013	.81
(+) 25. flexibility (T)	27	9	.0013	27	9	.0013	22	14	.0918	23	13	.0475	.88
(±) 26. gendering (T)	17	19	.7414	11	25	.0198	16	20	.5028	16	20	.5028	.63
(-) 27. harrassing (T)	12	24	.0228	8	28	.0003	14	22	.0918	10	26	.0035	.75
(-) 28. ignoring (T)	10	26	.0035	7	29	.0002	16	20	.2514	9	27	.0013	.75
(-) 29. illogical statements (T)	13	23	.0475	8	28	.0003	12	24	.0228	11	25	.0099	.50
(+) 30. individualizing (T)	26	10	.0035	28	8	.0003	20	16	.2514	23	13	.0475	.94
(+) 31. job satisfaction (T)	29	7	.0002	29	7	.0002	22	14	.0918	28	8	.0003	.75
(+) 32. knowledge of subject (T)	27	9	.0013	29	7	.0002	25	11	.0099	28	8	.0003	.88
(-) 33. manipulation (S)	17	19	.3707	6	30	.00003	9	27	.0013	8	28	.0003	.69
(+) 34. mobility (S)	27	9	.0013	27	9	.0013	22	14	.0918	21	15	.01587	.69
(+) 35. mobility (T)	26	10	.0035	28	8	.0003	19	17	.3707	17	19	.3707	.69
(+) 36. modeling/imitation (S)	22	14	.0918	23	13	.0475	19	17	.3707	21	15	.1587	.63
(+) 37. monitoring learning (T)	29	7	.0002	29	7	.0002	23	13	.0475	24	12	.0228	.88
(-) 38. moralizing (T)	7	29	.0002	8	28	.0003	20	16	.2514	21	15	.1587	.63
(-) 39. oneness (T)	11	25	.0099	12	24	.0228	12	24	.0228	11	25	.0099	.63
(+) 40. openness (T)	20	16	.2514	26	10	.0035	22	14	.0918	21	15	.1587	.56

* Number of times in 36 paired comparisons the more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 2 (continued)

Dimension	SECOND GRADE MATHEMATICS			SECOND GRADE READING			FIFTH GRADE MATHEMATICS			FIFTH GRADE READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(+) 41. open questioning (T)	24	12	.0456	27	9	.0026	26	10	.0070	19	17	.7414	.63
(+) 42. optimism (T)	28	8	.0003	29	7	.0002	23	13	.0475	27	9	.0013	.88
(+) 43. pacing (T)	27	9	.0013	26	10	.0035	23	13	.0475	25	11	.0099	.63
(+) 44. peer teaching (S)	26	10	.0035	19	17	.3707	18	18	.5000	24	12	.0228	.94
(+) 45. personalizing (T)	24	12	.0228	25	11	.0099	23	13	.0475	22	14	.0918	.56
(-) 46. policing (T)	7	29	.0002	9	27	.0013	14	22	.0918	14	22	.0918	.81
(+) 47. politeness (T)	23	13	.0475	26	10	.0035	25	11	.0099	21	15	.1587	.88
(+) 48. praising (T)	29	7	.0002	29	7	.0002	21	15	.1587	23	13	.0475	.81
(+) 49. promoting self-sufficiency (T)	25	11	.0099	30	6	.0003	23	13	.0475	24	12	.0228	.44
(-) 50. recognition seeking (T)	10	26	.0035	11	25	.0099	12	24	.0228	12	24	.0228	.69
(-) 51. rushing (T)	10	26	.0035	12	24	.0228	16	20	.2514	18	18	.5000	.75
(-) 52. sarcasm (T)	10	26	.0035	12	24	.0228	11	25	.0099	18	18	.5000	.75
(-) 53. shaming (T)	13	23	.0475	8	28	.0003	12	24	.0228	14	22	.0918	.63
(+) 54. signaling (control) (T)	17	19	.7414	15	21	.3174	8	28	.0006	8	28	.0006	.69
(+) 55. sponteneity (T)	26	10	.0035	28	8	.0003	25	11	.0099	23	13	.0475	.81
(-) 56. stereotyping (T)	16	20	.2514	11	25	.0099	14	22	.0918	16	20	.2514	.69
(+) 57. structuring (T)	24	12	.0228	28	8	.0003	26	10	.0035	25	11	.0099	.75
(+) 58. teacher made materials (T)	21	15	.1587	29	7	.0002	21	15	.1587	19	17	.3707	.75
(-) 59. time fixedness (T)	11	25	.0099	10	26	.0035	18	18	.5000	18	18	.5000	.81
(+) 60. waiting (T)	26	10	.0035	27	9	.0013	22	14	.0918	23	12	.0475	.75
(+) 61. warmth (T)	27	9	.0013	26	10	.0035	22	14	.0918	24	12	.0228	.81

* Number of times in 36 paired comparisons the more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 3

21 Generic Dimensions from Special Study A

Dimension	SECOND GRADE MATHEMATICS			SECOND GRADE READING			FIFTH GRADE MATHEMATICS			FIFTH GRADE READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(-) 1. abruptness (T)	13	23	.0475	9	27	.0013	11	25	.0099	10	26	.0035	.81
(+) 2. accepting (T)	26	10	.0035	25	11	.0099	24	12	.0228	26	10	.0035	1.0
(+) 3. adult involvement (C)	28	8	.0003	23	13	.0475	23	13	.0475	23	13	.0475	.75
(+) 4. attending (T)	26	10	.0035	30	6	.00003	25	11	.0099	25	11	.0099	.81
(-) 7. belittling (T)	11	25	.0099	12	24	.0228	12	24	.0228	12	24	.0228	.81
(+) 10. consistency of message (control) (T)	26	10	.0035	24	12	.0228	28	8	.0003	27	9	.0013	.69
(+) 11. conviviality (C)	25	11	.0099	30	6	.00003	23	13	.0475	27	9	.0013	.75
(+) 12. cooperation (S)	26	10	.0035	29	7	.0002	24	12	.0228	27	9	.0013	.81
(-) 14. defiance (S)	11	25	.0099	4	32	.000003	13	23	.0475	7	29	.0002	.81
(+) 19. engagement (S)	27	9	.0013	28	8	.0003	23	13	.0475	30	6	.00003	.88
(-) 24. filling time (T)	11	25	.0099	9	27	.0013	10	26	.0035	9	27	.0013	.81
(-) 29. illogical statements (T)	13	23	.0475	8	28	.0003	12	24	.0228	11	25	.0099	.5
(+) 32. knowledge of subject (T)	27	9	.0013	29	7	.0002	25	11	.0099	28	8	.0003	.88
(+) 37. monitoring learning (T)	29	7	.0002	29	7	.0002	23	13	.0475	24	12	.0228	.88
(-) 39. oneness (T)	11	25	.0099	12	24	.0228	12	24	.0228	11	25	.0099	.63
(+) 42. optimism (T)	28	8	.0003	29	7	.0002	23	13	.0475	27	9	.0013	.88
(+) 43. pacing (T)	27	9	.0013	26	10	.0035	23	13	.0475	25	11	.0099	.69
(+) 49. promoting self-sufficiency (T)	25	11	.0099	30	6	.00003	23	13	.0475	24	12	.0228	.44
(-) 50. recognition seeking (T)	10	26	.0035	11	25	.0099	12	24	.0228	12	24	.0228	.69
(+) 55. sponteneity (T)	26	10	.0035	28	8	.0003	25	11	.0099	23	13	.0475	.81
(+) 57. structuring (T)	24	12	.0228	28	8	.0003	26	10	.0035	25	11	.0099	.75

* Number of times in 36 paired comparisons the more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

illogical statements (29), monitoring learning (37), pacing (43), spontaneity (55), and structuring (57). The more effective teachers exhibited more of these dimensions that were viewed as positive and less of those dimensions that were viewed as negative.

Three of the twenty-one generic dimensions describe teacher behavior control moves: belittling (7), consistency of message (control) (10), and oneness (39). The more effective teachers more frequently were observed to display consistency of message, a positive dimension, and less frequently displayed belittling and oneness, negative dimensions.

The remaining four generic dimensions describe teacher characteristics More effective teachers were found to be more accepting (2), more optimistic (42), had a greater knowledge of subject (32), and exhibited less recognition seeking behavior (50).

In addition to these generic dimensions which discriminated for both grade levels and subject areas, other sets of dimensions discriminated by grade level or by subject. Thus, 25 dimensions with a p value of .0475 or less discriminated between more and less effective second grade teachers in both mathematics and reading; 3 dimensions did so for fifth grade teachers. Viewed by subject, 7 dimensions discriminated at both grade levels for mathematics, and 14 for reading. Differences between grade levels and subject areas were notable and may be partially attributed to differences in instructional materials and normal curriculum content.

Conclusions and Recommendations

Conclusions and recommendations made are:

(a) that the 61 Dimensions generated by Special Study A are worthy of further study during Phase III-B of the Beginning Teacher Evaluation Study, and that this can best be accomplished in a variety of configurations;

(b) that the dimensions of Special Study A describe the classrooms of more effective teachers as family-like in quality and feeling, and that this has important implications both for selecting and training teachers;

(c) that teachers at the second and fifth grade levels teach reading and mathematics in very different ways, and that this has implications for the training of teachers as well as for future research in teaching;

(d) that the methodology derived from sociology and anthropology and used in Special Study A is promising for future research in teaching, particularly in identifying those classrooms where more effective teaching seems to be occuring;

(e) that as rich sources of important, qualitative data, the protocols developed for Special Study A are worthy of further study and analysis.

CHAPTER ONE

INTRODUCTION

This document reports to the Commission for Teacher Preparation and Licensing of the State of California the findings of Special Study A of the Beginning Teacher Evaluation Study. Based on the results of the study, it recommends those variables which appear to be predictive of effective teaching of reading and mathematics at the second and fifth grades and which therefore should be included for further study in Phase III-B of the Beginning Teacher Evaluation Study. Also provided here are a description of the methodology developed for the study and recommendations for its future use in research on teaching.

The overall purpose of Special Study A was to seek qualitative information about the effective teaching of reading and mathematics at the second and fifth grade levels. Because the study used a case study approach not often found in educational research, it seems appropriate to provide a brief background discussion of the methodology. The underlying impetus for the approach is discussed first, followed by a more specific bacground explanation of the particular technique employed in this study. A final brief section of this chapter lists the specific purposes of Special Study A.

Background for Selection of Research Methodology

Educational research traditionally has relied upon, and therefore been primarily influenced by, methodologies derived from research in psychology. Psychology, in turn, has modeled itself on physical science. In modeling their work on that of physical scientists, psychologists have aspired "to amass empirical generalizations, to restructure them into more general laws, and to weld scattered laws into coherent theory" (Cronbach, 1975).

Because of this influence, research on teaching has reflected a predominant dedication to what Cronbach termed a "quest for nomothetic theory," best exemplified by the identification for investigation of only those questions which comfortably fit the ruling ideals of hypothesis testing and model building (Cronbach, 1975). Such selective criteria have produced research on teaching and on teacher effectiveness which has a number of shortcomings (Snow, 1974; Brophy, 1974). Among them are the following.

- Single teaching acts have been isolated for study with little attention given to the context in which these acts occur. Explanations for the "mixed" results which typically occur (Rosenshine, 1970), are difficult to come by since one does not know the extent to which the total teaching/learning system contributed to and/or detracted from the impact of the single act. This breaking up of a complex phenomenon into a "temporal chain of events, all connected by determinate 'causal' relations," is a dangerous assumption (Rappoport and Horvath, 1968). The study of separate variables derived from such a complex system as the instructional process in the classroom has therefore "tested 'ungrounded' and often meaningless hypotheses" (Lutz and Ramsey, 1974).
- In order to achieve some degree of experimental control within the classroom setting, the knowledge and/or skills to be acquired by students have generally been imposed by the researcher. As noted by Snow (1974), the extent to which this content is congruent with ongoing teaching/learning activities is seldom considered. The degree to which the content encourages or

discourages the occurrence of teaching/learning events that are critical to successful performance in the regular instructional context is not known, thereby leaving an area of uncertainty regarding what is currently known about effective teaching. What is left unknown and unanswered in such a research design is the degree to which the process of socialization within the classroom bears upon and determines the outcome, i.e., the development of attitudes, values, beliefs, notions about the world, and notions about self (Rist, 1973b). The absence of such qualitative data shadows and obscures quantified findings (Campbell, 1974).

- Teaching acts and learning outcomes that have been studied to date are, for the most part, those that can be subjected to measurement by paper and pencil tests or by the development of behaviorally defined coding systems. Descriptions of the activity in a classroom, therefore, have been limited by the "screens" through which events have been recorded--screens that are soundly based from a psychometric, quantitative point of view but lacking in terms of qualitative information surrounding the reality of what actually occurred. Lutz and Ramsey (1974) best pinpointed the dilemma:

> Variables are operationalized because there is some available printed test with some kind of statistical reliability and validity measure and after data are collected it can be submitted to a computer for an analysis usually much too esoteric and powerful for the nature of the hypothesis. In such a case the hypothesis is not grounded, the variables may not be recurring or important, the operational measures may have little relationship to operational reality, and the statistic used to test this ill-conceived hypothesis and the number in the sample make the test of it much more powerful than the hypothesis is compelling. (Lutz and Ramsey, 1974, p. 5).

- Because of constraints on the resources available, studies of teaching generally build upon brief periods of teaching/learning time, often as little as one hour or less. The extent to which such "samples" represent teaching as a whole obviously must be questioned. Rist (1973b) noted that "without all day, every day presence in the classroom, [he] observes only segments of what was a continuous process occurring seven hours daily, five days per week," over the period of a school year. The use of a direct observer, fully embedded in the ongoing process of the classroom, seems to be an emerging tool in some current evaluation of NIE-funded projects (Campbell, 1974), and the use of such anthropological field methodology over a longer period of time can result in accumulation of more qualitative data (Lutz and Ramsey, 1974).

These shortcomings in research on teaching, combined with the uneasiness shared by many with the intellectual style of psychological research based solely on nomothetic theory (Campbell, 1974; Cronbach, 1975; Glass, 1972; McGuire, 1974; Newell, 1972), have created in educational researchers an introspective stance toward their accomplishments. Such reflection has led naturally to questioning of the research questions being asked and the research methodology being employed to answer them. It is out of this questioning that the impetus has grown to look beyond the methodologies of experimental psychology--to look toward other disciplines in the social sciences for approaches to the study of teaching. Most important, the intent of this movement is to gather *qualitative* evidence as well as *quantitative* evidence. Campbell (1974) characterized the contrast between these two approaches:

> For *quantitative* read also scientific, scientistic, and *naturwissenschaftlich*. For *qualitative* read also humanistic, humanitistic, *geisteswissenschaftlich*, experiential, phenomenological, clinical, case study, field work, participant observations, process evaluation, and common sense knowing.

Gathering qualitative evidence, Cronbach suggests, involves "intensive local observation [that] goes beyond discipline to an open-eyed, open-minded appreciation of the surprises nature deposits in the investigative act" (Cronbach, 1975). It requires "direct observation of human activity and interaction in an ongoing, naturalistic fashion" (Rist, 1973b). It allows the researcher to

> file descriptive information . . . instead of reporting only those selected differences and correlations that are nominally "greater than chance." [Such] descriptions encourage us to think constructively about results from quasi-replications . . . (Cronbach, 1975).

It was in the spirit of operationalizing such systematic inquiry into teaching that Special Study A of the Beginning Teacher Evaluation Study (BTES) was designed and conducted.

Ethnographic Methodology

The case study approach used in Special Study A is derived from social anthropology. It is known variously as ethnography, "micro-ethnography," anthropological field methodology, and nonparticipant observation (Malinowski, 1922; Smith and Geoffrey, 1968; Rist, 1973b; Lutz and Ramsey, 1974; Campbell, 1974), and for this discussion, these terms will be considered interchangeable.

Essentially, this data collection technique differs from the traditional method employed by educational researchers in that, rather than focusing solely on *quantitative* evidence derived from the "psycho-statistical model"

(Lutz and Ramsey, 1974), it instead utilizes trained observers to gather *qualitative* data by direct observation. The observer, usually highly trained and experienced in observation techniques, directly observes human activity and interaction in an ongoing, naturalistic fashion (Rist, 1973b). The tools for recording what occurs in this setting run the gamut from no recording during observation and total recall afterwards, to note-taking during observation, to tape- and/or audiorecording of events as they are being observed. The resulting product is a protocol of what occurred.

Exemplary use of protocols generated from this data collecting technique is best illustrated by Jackson (Life in Classrooms, 1968), Smith and Geoffrey (The Complexities of an Urban Classroom, 1968), and Rist (The Urban School: A Factory for Failure, 1973a). Each of these books reports naturalistic observations of the classroom: Jackson, observations made over a long period of years, reflecting experiences in many classrooms; Rist, observation of a single group of children over a period of three years; Smith and Geoffrey, observation utilizing participant (the teacher)/nonparticipant (an ethnographer) observers in a single classroom within a school year.

Malinowski (1922) first used the term "ethnography" to label his observation of and participation in the activities of a Trobriand village. His work, like that of succeeding anthropologists, demanded that he isolate himself from the outside world so that he could become steeped in the particular culture he was studying. It is on his work that current ethnographic methodology is based.

Sociologists have used ethnographic methodology for both nonparticipant and participant observation. Nonparticipant observation has been used to study a variety of sociological phenomena: development of racial identification (Clark, 1947; Goodman, 1952); community organization (Lynd and Lynd, 1928; Warner, et al., 1944; Hatch, 1948); controlled studies about attitude formation (Katz, 1957); and the effects of group pressure on the modification and distortion of judgments (Asch, 1952). Participant observation has been used to study communities (Whyte, 1943); jazz musicians (Becker, 1955); black streetcorner men (Liebow, 1967); and cab drivers (Henslin, 1967).

Forms of both participant and nonparticipant observation have been used by educational researchers for the study of classroom activities and interaction (Vaughn and Faber, 1952; Flanders, 1960; Henry, 1963; Bellack, 1966; Biddle and Adams, 1967). Smith and Geoffrey (1968) combined participant/nonparticipant observation to study a single classroom.

Anthropological field methodology centers on the *development* of hypotheses rather than the *testing* of them, contrary to most research methodologies drawn from experimental psychology (Glaser and Strauss, 1967; Lutz and Ramsey, 1974). Thus, an observer begins with "tentative assumptions about the phenomenon being studied" formulated from social-anthropological theories.

> [These assumptions] serve as guides to the researcher who is not wed to them or predisposed to prove them. They explicate relationships that might exist and thus direct first efforts at data collection in the field. As data are gathered these assumptions are refined, conditions of verification and exceptions are noted, checked, rechecked, and the statements refined to correspond with the empirical fact. (Lutz and Ramsey, 1974, p. 5)

An example of such assumptions is the use in this study of Henry's (1960) list of organizing concepts, "A Cross-Cultural Outline of Education". In this outline, Henry has attempted to organize for an observer the components of an educational system that are common across cultures. The listing is nonevaluative; its purpose is solely to help organize observations. The major categories in Henry's outline are listed in Table 1; the complete outline appears as Appendix A.

TABLE 1

Major Categories in Henry's
Cross-Cultural Outline of Education

I. On what does the educational process focus?
II. How is the information communicated (teaching methods)?
III. Who educates?
IV. How does the person being educated participate?
V. How does the educator participate? (What is his attitude?)
VI. Are some things taught to some and not to others?
VII. Discontinuities in the educational process.
VIII. What limits the quantity and quality of information a child receives from a teacher?
IX. What forms of conduct control (discipline) are used?
X. What is the relation between the intent and the results of education?
XI. What self-conceptions seem reinforced?
XII. How long does the process of formal education last?

Note.-- From Jules Henry, Current Anthropology 4, July, 1960.

The use of tentative assumptions to serve as guides is helpful in conducting field research. They can be built from prior knowledge of the system being studied, from first observations, and from conceptual and theoretical positions held by the observer (Greer, 1969). Malinowski (1935) attributed the ability to make relevant observations to a theoretical grasp of the problem and stated that "... scientific theory of fact is as necessary as a chart for observations and a check on observations." Malinowski further observed:

> Good training in theory and acquaintance with its latest results is not identical with being burdened with "preconceived ideas." If a man sets out on an expedition, determined to prove certain hypotheses, if he is incapable of changing his views constantly and casting them off ungrudgingly under the pressure of evidence, needless to say his work will be worthless. But the more problems he brings with him into the field, the more he is in the habit of moulding his theories according to facts, and of seeing facts in their bearing upon theory, the better he is equipped for the work. (Malinowski, 1922, pp. 8-9)

The distinction in methodology--between testing previously formulated hypotheses in research methodology derived from experimental psychology and beginning with tentative assumptions and developing hypotheses as data are collected in anthropological field methodology--is perhaps best stated as a matter of degrees of more and less. It does not mean that the distinction is absolute. It does mean, however, that as applied in Special Study A, ethnographic methodology is characterized by an absence of observation instruments, carefully described criteria, lists of specific phenomena to be counted, and artificial time constraints imposed for counting purposes.

When the data have been collected in the form of protocols of the phenomena studied, they are analyzed. Levi-Strauss (1966) has suggested a structural method for determining patterns in which the socio-cultural system can be dissected into its important parts and then reconstructed in terms of the relationships among these parts. It is this reconstruction that serves as an anthropological model for hypothesizing. Thus, theories are developed which correspond to and evolve from observed data and which can serve as "grounded theory" that can then be tested by experimental or field-experimental methodology (Glaser and Strauss, 1967). Becker stated:

> The final stage of analysis in the field consists of incorporating individual findings into a generalized model of the social system or organization under study or some part of the organization. The concept of social system is a basic intellectual tool of modern sociology. [It explains]... particular social facts by explicit reference to their involvement in a complex of interconnected variables that the observer constructs as a theoretical model of the organization. In this final stage, the observer designs a descriptive model which best explains the data he has assembled. (Becker, 1958, p. 657)

Anthropological field methodology is not without its possible problems, and researchers using ethnographic data collection techniques are wary of the limitations. It is perhaps useful to list these problems here as they also apply to the conduct of this study.

1. Entry into the situation to be observed is of paramount importance because it determines the quality and honesty of the data to be collected (Kahn and Mann, 1969; Turnbull, 1972; Rist, 1973b; Lutz and Ramsey, 1974). Every effort to develop mutual interchanges, trust, and reciprocity should be undertaken (Gouldner, 1959; Rist, 1973b).
2. The presence of preconceived ideas held by the observer and the selective perception in what one observes can distort the findings and interpretations (Malinowski, 1922; Rist, 1973b); however, these also can be useful as "tentative assumptions" for collecting data.
3. Masking of behavior by those being observed can camouflage their true beliefs and attitudes, and efforts must be made to counter this (Talbert, 1970; Rist, 1973b).
4. Data analysis is critical, and care must be taken to develop procedures that avoid irrelevant or incorrect inferences (Becker, 1958; Levi-Strauss, 1963; Smith and Geoffrey, 1968; Lutz and Ramsey, 1974). Lutz and Ramsey (1974) have offered as partial solution a procedure based on synthesis of Becker's four steps requisite to inferences:
    a. Observation and conclusion that a phenomenon does exist and postulation of the possible relationship of the behavior to some concept or theory.
    b. Determination that the observed event is typical and usual in the culture or society.
    c. Incorporation of single events into a model. (In other words, the elements of the culture once singled out are put back together in such a way as to explain the total system.)

d. Final presentation of the evidence that substantiates the model developed. (This last step is performed after data collection is completed, although the researcher may return to the field briefly to recheck some specific situation.) (Lutz and Ramsey, 1974, pp. 7-8.)

The reliance in Special Study A on the ethnographic methodology discussed here is best characterized by Rist:

> A basic epistemological assumption underlies my selection of direct observation as the primary research strategy employed in this study. Succinctly, I believe human behavior, to be contextually understood, must be observed firsthand. Granted the problems of bias or preconception may be critical to the interpretation given in the data, nevertheless, there will exist an account of the behavior relatively independent of the interpretations drawn from that account (Rist, 1973b, p. 8).

Purpose of the Study

The general purpose of Special Study A was to obtain qualitative information about effective teaching of reading and mathematics in the second and fifth grades. The specific objectives were:

- To study the forty classrooms which compose the Known Sample of the Beginning Teacher Evaluation Study, utilizing sensitive observers trained in ethnographic data collection methodology derived from the discipline of social anthropology.

- To identify teacher characteristics, student characterisitics, and instructional characteristics inherent in the teaching/learning of reading and mathematics at the second and fifth grade levels that explain previously determined characteristics of the Known Sample, using as a framework common organizing concepts derived from social anthropology.

- To generate protocols, which in effect are case studies, for each of the forty classrooms in the Known Sample and to subject these protocols to review by experts from a variety of disciplines to analyze and to re-analyze the raw data in order to explain previously determined characteristics of the Known Sample.

- To develop, pilot test, and refine a methodology that applies the technology of the social antrhopological ethnographer to a Known Sample of classroom instructional settings over a relatively short period of time in order to offer such methodology for either Phase III-B of the BTES or other educational research.

CHAPTER TWO

Procedures

The procedures used in Special Study A are discussed in this chapter under two major headings: data collection and data analysis.

Data Collection

Data collection was performed by a team of ethnographers trained to observe the classrooms of a Known Sample of forty teachers--twenty at the second grade level and twenty at the fifth grade level. These forty teachers were known to vary significantly in measured effectiveness as teachers of mathematics and reading. Selection of the Known Sample is discribed in a separate report to the Commission for Teacher Preparation and Licensing. For purposes of this report, however, it is important to note that the Known Sample consisted of ten more effective teachers and ten less effective teachers at both the second and fifth grades, making a total of forty teachers.

For each of the forty classrooms, the ethnographers produced a set of data consisting of formal protocols, based on notes taken during the teaching of mathematics and reading; informal protocols, based on observations and interviews outside of reading and mathematics instruction; and a summary profile.

Details of these data collection procedures are explained on the following pages: (1) recruitment and selection of ethnographers; (2) ethnographer training; (3) assignment and scheduling; (4) observation procedures and data production; and (5) trustworthiness of the data.

Recruitment and Selection of Ethnographers

A team of twleve ethnographers was selected to collect data in the classrooms of the Known Sample of teachers. Recruitment was begun early the design of the study through departments of anthropology and sociology at universities in both northern and southern California The departments contacted were those where it was thought that development of the skills of participant and/or nonparticipant observation was a major goal of the graduate program. Another important criterion was the location of the university. To minimize travel costs during the study, ethnographers were sought from universities relatively close to the sites of the Known Sample classrooms. Thus the universities contacted were in the greater San Francisco Bay and greater Los Angeles areas. A printed announcement was circulated among professors at the selected insititutions and they in turn encouraged their students to apply.

Employment opportunities that allow graduate students to gain ethnographic experience are rare. In fact, most anthropologists and sociologists develop their ethnographic skills without benefit of such support. Thus, while it was thought at first that there would be considerable difficulty in recruiting ethnographers for the study, this did not prove to be the case. More than forty applicants were interviewed to select the twleve ethnographers who were employed.

In the San Francisco area, four institutions proved to be valuable sources for recruiting ethnographers: San Francisco State University, two ethnographers (sociology); Stanford University, four ethnographers (two each from sociology and anthropology); University of California, Berkeley, two ethnographers (sociology); University of California, Davis, one ethnographer (sociology); and University of California, San Francisco, one ethnographer (sociology). In the southern California area, two ethnographers were hired from the University of California, Santa Barbara (sociology).

Selection was based on four criteria: (1) ethnographic experience, (2) time commitment, (3) mobility, and (4) stamina and potential for performing an essentially "invisible" task.

Table 2 reports the range of experience in relation to the first criterion.

TABLE 2

Descriptive Experience of Ethnographers in Special Study A

Ethnographer	Most Recent School	Anthropology/ Sociology Degree Programs			Number of Nonparticipant/ Participant Observation Experiences
		Ph.D	M.A.	A.B.	
1.	U.C. Santa Barbara Ph.D, Sociology	X	X	X	3
2.	Stanford University M.A., Education			X	4
3.	Stanford University M.A., Communications	X*			0
4.	U.C. Berkeley Ph.D., Sociology of Education	X	X		2
5.	San Francisco State M.A., Sociology		X	X	2
6.	U.C. Davis Ph.D.* Sociology	X*		X	5
7.	U.C. Santa Barbara M.A., Sociology	X*	X	X	2
8.	U.C. Berkeley Ph.D, Sociology	X*		X	1
9.	U.C. San Francisco Ph.D*, Sociology	X*	X		1
10.	Stanford University M.A., Anthropology	X*	X		0
11.	Stanford University M.A., Anthropology	X*	X		1
12.	San Francisco State M.A., Sociology		X	X	3

*Ph.D. candidate

Column 4 lists for each ethnographer the number of reasonably long-term ethnographic experiences as a nonparticipant and/or participant observer. These were either part of a graduate school program or represented work experience since graduation. Of the twelve ethnographers, one had 5 such ethnographic experiences and one had 4; two had 3 experiences; three had 2 experiences and three, had 1; two of the ethnographers had no experience. In the latter category, Ethnographer 3, while having had no formal ethnographic data collecting experience, was selected to participate because of work produced in the field of sex role stereotyping and because she was enrolled as a doctoral student in anthropology. Ethnographer 10 had short-term ethnographic experience specifically related to the field of education and was selected primarily because of his demonstrated capacity to perform ethnographic data collection in an earlier design phase of Special Study A. Column 3 in Table 2 indicates the level of university degree earned by the ethnographers in either sociology or anthropology. Seven had undergraduate degrees in one of these fields, eight had master's degrees, and nine were enrolled in or had completed doctoral programs in either anthropology or sociology. Column 2 lists the names of the schools from which they were recruited.

Time commitment, the second criterion for selection, meant that an ethnographer had to be free of other work and studies during the eight-week duration of the study. This criterion was imposed because it was felt that long hours would be required to collect data during the school day and to dictate and organize notes. A decision was made to select only those who could donate such time.

Mobility, the third criterion, was another important factor. An ethnographer living in San Francisco, for example, needed to be able to leave his home on a Sunday evening, fly to southern California and check into a hotel, and remain there for a week. While it had been planned to utilize ethnographers only in their home locations, this proved to be impractical, making the willingness to travel important.

Finally, ethnographers also were selected on the basis of their physical stamina and their potential for "invisibility" as ethnographers intruding on regular classroom life. Stamina was necessary to insure that three weeks of hard training, followed by four weeks of day-long data collection and dictation of data that sometimes took long hours at night, would not be physically debilitating. Potential for "invisibility" required that ethnographers resemble mainstream dress and mien as closely as possible to insure a minimum of distraction from the ongoing schooling process.

Ethnographer Training

The training of ethnographers for Special Study A presented a major challenge. Unlike more conventional data collection procedures, non-participant observation does not use an externally standardized instrument. It does not incorporate an "observation schedule" or any other formalized instrumentation. Instead, the ethnographic approach utilizes the individual research person as the instrument for data collection. The ethnographer does not necessarily go into the field carrying a pilot tested and precoded instrument to be marked in indication that data were observed or encountered. Typically, the ethnographer *is* the instrument. He does not go into the field and with detachment accept as data those instances of behavior that conform to fixed definitions. Rather, the ethnographer goes into the field to select observations which become instances and, when recorded, become data.

The training challenge posed by such a data collection procedure is evident, especially when compounded by the fact that not just one or two but twelve different persons were involved. These twelve ethnographers had to be trained to collect reliable qualitative data in a complex social environment. Through training, they had to be sensitized to observe and record the subtle nuances of classroom life while at the same time being careful to screen out as much as possible those impressionistic, value- and judgment-burdened, subjective opinions which in everyday life often pass as fact.

Three weeks were spent in training the ethnographers for Special Study A. The training program was conducted by Drs. Ray C. Rist and William J. Tikunoff and held in San Francisco, California, at the Far West Laboratory for Educational Research and Development and in cooperating schools of the surrounding area.

Training was divided into two major activities: (1) a literature review and writing assignment and (2) training in ethnographic data collection techniques through seminars held at the Far West Laboratory and through field experiences.

Review of selected literature. Prior to training, each ethnographer was instructed to write a paper reviewing selected literature on elementary classrooms and methodological issues in ethnographic and educational research. The literature used, which was selected for its relevance to the ethnographic orientation of Special Study A, is listed in Appendix B along with an outline followed by the ethnographers in producing their papers.

The intent of assigning the papers was to obtain from each ethnographer a position statement about methodological issues inherent in any study, but especially those faced in the ethnographic approach. Writing these papers enabled the ethnographers to concentrate their time on developing their knowledge of ethnographic technology, particularly in relation to the study of classrooms. The papers also helped them come to grips with and to reconcile the particular issues of employing classroom research interests with the data collection technology planned. The titles of the papers produced by the ethnographers give a small indication of the individual experiences these individuals brought to the study. The titles are included in Appendix B.

Training in ethnographic data collection. At the heart of the ethnographic approach to data collection lies an interest in the substance and nuance of the ongoing social life of the classroom. The ethnographer employing this procedure is, by definition, not specifically seeking only the frequency and distribution of known and named phenomena; he also is seeking the richness and character of settings and situations in their flowing procedural complexity. While the ethnographer can easily quantify some or most of his data collection if need be, he prefers to give attention to the sequence of interaction, thus avoiding the pitfall of overlooking important data. In the ethnographic approach, everything which occurs in the classroom fits into the data collection technology at the moment it is observed.

Collection of such data requires a high degree of expertise in observation. The ethnographer must be sensitive to the nuance, sequence, and pattern of interaction. He must have flexibility in perception and scope of inquiry to accommodate both the unexpected and the ordinary. He also must be disciplined in thought and procedure, keeping the mind awake and the eyes moving, keeping the sensitivity acute and accepting, and keeping the significant methodological distinctions among data, interpretation, and blatant opinion crystal clear. Collecting and recording this type of data is very difficult, and considerable time was given to developing and refining the training procedures for producing such behavior on the part of the ethnographers.

To accomplish the necessary training, a combination of seminars and field experience was used. During the first week of training the ethnographers participated in seminars at the Laboratory; during the second and third weeks they alternated sessions at the Laboratory with field experience in cooperating schools similar to those in the Known Sample. Three schools in the San Francisco Bay area were utilized on a purely voluntary basis: the Audubon School in Foster City, Old Mill School in Mill Valley, and Marshall Elementary School in Castro Valley. The personnel at each school were fully aware of the trial purposes of the study and volunteered to participate in training the ethnographers.

The major areas of emphasis in the data collection training were: (1) Henry's "A Cross-Cultural Outline of Education"; (2) classroom practices in the teaching of reading and mathematics; (3) notetaking; and (4) dictating from field notes.

1. In order to focus observation on similar elements of classroom life, the ethnographers were required to become intimately familiar with Henry's "A Cross-Cultural Outline of Education" (see Appendix A). The trainers worked to hone the ethnographers' observation skills along the lines of Henry's outline in order to establish some degree of parallel reporting.

2. Another facet of training focused on classroom practices that ethnographers might commonly find in the teaching of reading and mathematics. This information was relayed by the trainers as parenthetical inserts when opportunities arose. In this way, attention was not diverted from ethnographic techniques, while still providing information to help sharpen the ethnographers' observation of reading and mathematics teaching.

3. An important dimension of the training was concerned with notetaking. Field notes provide the needed methodological link between observation in the classroom and subsequent storage for analysis. They

make possible a necessary flexibility as well as a discipline of systematic recording.

The ethnographers were taught the notetaking procedures used with success by Dr. Rist in educational research. These procedures provided a common format for producing protocols. (Protocol production is detailed in a later section.) The strategy used in Special Study A may be called the camera metaphor. The ethnographer makes an effort to record all that is said and done within the range of his visual and aural senses. This involves a constant writing effort in which the ethnographer notes the continuous flow of events as they unfold before his eyes and ears. Everything which occurs between two points in time is captured in literal narrative fashion.

Ethnographers were trained to write as fast they individually were able, attempting to capture on paper everything--verbal, and nonverbal--that occurred in the classroom. In addition, the ethnographers were trained to capture by observation the subtle nuances--the smells and sounds--which would not appear on film or videotape were these approaches used. Opportunity to practice the notetaking procedures taught in the training sessions was then provided through field experience.

4. A fourth emphasis in training was on dictating field notes. The ethnographers were expected to dictate their field notes onto cassette recordings after each day's observation--a procedure they were able to practice during training by dictating notes from their field experience observations

The format for dictating field notes followed naturally from actual notetaking in the classroom. Sitting down with their notebooks and tape recorders in front of them, the ethnographers were trained through practice to dictate their observation notes onto cassette. They became accustomed to reading, organizing, and clarifying their notes in a consistent manner. Descriptions of events and utterances were allowed. Comments on the propriety of what was observed were not allowed. Theoretical comments, to the extent any emerged, were segregated from the main flow of notes by the use of parentheses. This practice in dictation sensitized the ethnographers, making them acutely aware of the important distinctions between data and non-data (e.g., hunch, speculation, theoretical comment). The outcome of the training was a consistent form of recording data collected in a qualitative fashion.

The field experience component of the training provided practice in both notetaking and dictation. On five occasions, each ethnographer observed in a classroom, taking notes and then dictating protocols in the manner used in the study. On the first occasion, each ethnographer produced only one protocol for a relatively short duration of observation time. By the fifth classroom field experience, however, the ethnographers were able to produce at least two protocols, each representing a duration of observation time equal to that in the actual study.

Throughout the training program, feedback was provided. One form of feedback occurred through a seminar in which the ethnographers were encouraged to express their understanding of the approach. From such expressions, the trainers were able to comment purposefully, guiding the ethnographers toward a common sensitivity and procedure. Discussion of this nature occurred almost daily during the training conducted in the Laboratory. A continuing interchange developed between the ethnographers and their trainers and was nourished throughout training.

A second form of feedback came about as the trainers critiqued and then discussed the protocols produced as a result of the field experience. Each set of protocols produced by the ethnographers on a given day was read, and critiqued by the trainer as an ethnographic expert and by the director of the study as a research on teaching expert. Because of the time frame in which training was conducted, the dictated notes had to be transcribed under intense pressure and the protocols critiqued at night in order to be fed back to the ethnographers the following day. Table 3 presents the protocol production sequence during training.

TABLE 3

Protocol Production Time Frame During Training

Day 1	Day 2
8:30AM: Ethnographers observe in classrooms, taking notes	8:30AM: Feedback to ethnographers in large group re training protocols
1:00PM: Ethnographers back at FWL; dictate protocols	1:00PM: Feedback to individual ethnographers re training protocols (when necessary; otherwise, film training)
3:00PM: Stenographers transcribe protocols	
9:00PM: Trainer and director of study read and critique protocols	

There were three major purposes in reading and critiquing each of the five sets of protocols produced during training: first, to establish that the ethnographers were observing format rules for generating protocols; second, to determine that the ethnographers were adhering to Henry's "A Cross-Cultural Outline of Education," used during training for purposes of organizing and reporting collected data; and third, to insure that the ethnographers were attending to those facets of the teaching of both reading and mathematics which were central to Special Study A as well as to the entire Beginning Teacher Evaluation Study. Thus, in addition to providing necessary feedback as part of the training process, these critiques also helped the trainer and study director to evaluate the ongoing training and adjust it as necessary.

Beyond the evident value of field experience in such a training program, this dimension of training served three other purposes of considerable importance.

First, the field work helped to establish a common base of experience among the twelve ethnographers. Through discussion of their experiences during training, they were able to attain some common perceptions about structural and administrative features of operating classrooms that affect the ethnographer's observational environment.

Second, the field experiences served a style-setting and rapport-refining function. The appropriateness and viability of personal ethnographic styles and rapport, were, in effect, tested through the sustained training exposure. This was an important aspect of training. To be effective in a given field setting, the ethnographer first must become accustomed to the differences between himself and the persons being observed. The reverse also is true: the participants of the field setting must become accustomed to the presence of an ethnographer, someone who is conspicuously making notes about their activities. A sense of interpersonal legitimacy is required, and it must be developed in such a way that it can be sustained. If an ethnographer enters a field setting one day and makes a good impression--if he establishes rapport--that impression must be lasting. The rapport must be sustained over the entire observation period. If it is shallow, subject to continued inquiry, or found to be problematic, the normalization of any observer-observed relationship is destroyed.

Rapport also is significant in terms of obtaining trustworthy data from multiple ethnographers. If there is considerable variation among ethnographers in level of rapport, then there is a loss of standardization of procedures in the field. Thus during field experiences the ethnographers were coached in a public style of presence and given the opportunity to individually practice and refine that style while becoming personally comfortable with it. The field trials not only served to help work out any ethnographer's discomfort, but also served to train each of them in exhibiting essentially the same public rapport.

A third function of the field ethnographic experiences was to permit the trainers to assess individual ethnographers' suitability to the design of the study. This was a safeguard for the study as a whole. Few ethnographers are available. The formal academic training and the successful practical experience required of an ethnographer--the experiences which make such a research person--are not widely found. For this reason, it was difficult for the trainers to have firsthand information about the quality of a given ethnographer's skills. Moreover, an ethnographic undertaking on such a large basis is unique to educational research, if not to all other areas of social research. Consequently, the project director and trainer tried to build the field trials into the training program with the idea that they would serve to weed out any ethnographer who demonstrated a lack of professionalism. Fortunately, no incidents occurred which necessitated such action.

Perhaps it should be noted in this regard that it was originally intended to use only ten ethnographers in the study. From the training of twelve ethnographers, it was expected that perhaps only ten would emerge with a similar "data collecting net," and that these ten would be hired.

Two reasons made it apparent that all twelve should be hired.

First, all twelve ethnographers did well in training. By the last critique, it was the judgment of the trainer as ethnographic expert that all twelve were successfully adhering both to the ethnographic training input and to Henry's outline to approximately the same degree. In addition, it was the opinion of the director of Special Study A that all twelve were equally attentive to those facets of teaching reading and mathematics important to the study. Therefore, the decision as to whom to "cut" from the cadre of ethnographers would not have been an easy one, nor could it have been made solely on the basis of ethnographic expertise.

Second, it became apparent during training and while organizing the observation schedule for the study that some form of monitoring was needed beyond that which had been planned. Earlier, a member of the Special Study A staff resigned to take a position elsewhere, and because he was to assume the responsibility for monitoring the field work in the study, this left no one to fill that need. His departure, while untimely, provided an opportunity to utilize the other two ethnographers for purposes of monitoring. The manner in which this was accomplished is discussed below under "Assignment and Scheduling" and needs no attention here. The important point is that full use was made of all ethnographers, but this could not have been the case had they not been trained to function similarly as ethnographers in collecting data from the classroom.

Assignment and Scheduling

Assignment of ethnographers to classrooms in the Known Sample was made at the end of the training program. Each ethnographer was assigned to observe at a single grade level--either second or fifth grade. There was no systematic bias in making assignments, but consideration was given to geographic convenience and to the ethnographers' personal comfort with the age level of students to be observed. In two instances, a switch across grade levels was requested and granted before observation began.

The only attempt to structure assignments was to insure that each ethnographer observed teachers who differed in their teaching effectiveness. Thus, no ethnographer observed classrooms whose teachers were all at one end or the other of the effectiveness continuum. These assignments were made by the director of the Known Sample study so that neither the director and staff of Special Study A nor the ethnographers were informed about the effectiveness ratings of the teachers. The ethnographers also were unaware of the specific distinguishing characteristics of the teachers in the Known Sample. They knew only that the participating teachers varied in their teaching styles. This variance was described to the ethnographers as being based on several factors and related to the teachers' work in teaching the Experimental Teaching Units (ETUs) specially developed for use in selecting the Known Sample.

Table 4 reports the ethnographer assignments. Ethnographers 1 through 6 observed in the second grade, and ethnographers 7 through 12 in the fifth grade. With two exceptions, during weeks 1 and 3, observation was conducted in the Known Sample schools in northern California; during weeks 2 and 4, in southern California. The exceptions were ethnographers 1 and 7 who, since they lived in southern California, observed there also during weeks 1 and 3. As shown in Table 4, each ethnographer was assigned to both more effective teachers' classrooms (designated by "A") and to less effective teachers' classrooms (designated by "B"). All but four ethnographers observed three teachers; the others were assigned four classrooms. Each teacher in the Known Sample was observed daily for a week by the same ethnographer beginning on Monday and continuing through Friday. Teachers

TABLE 4

Assignment of Ethnographers to Classrooms of the Known Sample

Ethnographer		Week 1 Northern California	Week 2 Southern California	Week 3 Northern California	Week 4 Southern California
Second Grade	1*	A	A	B	Summarize protocols at FWL
	2	A	B	B	A
	3	B	A	Paired observation with 1, 2, 4, and 6	A
	4	Paired observation with 2, 3, 5, and 6	B	A	A
	5	B	B	Paired observation with 7, 9, 10, and 11**	A
	6	A	B	A	B
Fifth Grade	7*	A	B	A	Summarize protocols at FWL
	8	A	B	A	B
	9	Paired observation with 8, 10, 11, and 12	B	A	A
	10	A	B	B	A
	11	B	A	B	Summarize protocols at FWL
	12	B	A	B	Summarize protocols at FWL

*Remained in southern California for observations

**Served as paired observer for fifth grade observers

A: More effective teachers

B: Less effective teachers

and their principals were notified two weeks in advance of the pending visit, and each teacher also was contacted by his assigned ethnographer late during the week preceding the visit.

A formal observation, during which notes were taken, was conducted for one reading lesson and one mathematics lesson each day. Lessons lasted in duration from twenty minutes to forty-five minutes. Observations were made only in the classroom of the participating teacher. Informal observations, when notes were not taken, were conducted at various other times throughout the school week and included some observation outside the classroom, e.g., at recess, at lunch, in the faculty room, in the principal's office.

During the first and third weeks, as shown in Table 4, paired observations were conducted at both grade levels. On each of four days (Tuesday through Friday), paired observers worked alongside one of the ethnographers regularly assigned to a classroom. Thus during that week, the paired observer observed in four different classrooms. For example, ethnographer 4 served as a paired observer for the first week at the second grade level, observing with ethnographers 2, 3, 5, and 6 on Tuesday, Wednesday, Thursday, and Friday. In each instance, both the paired observer and the regularly assigned ethnographer produced a formal protocol for the reading and mathematics lessons. Paired observers also tried to produce an informal protocol (based on observation outside of these subject areas) when they could.

During the third week, ethnographer 5, who was assigned to second grade classrooms, served as the paired observer for ethnographers assigned to the fifth grade. This was done for two reasons: because the teacher assigned to ethnographer 5 the third week was going to be out of the classroom during that time, requiring rescheduling to the fourth week; and because ethnographer 11, originally scheduled to be the fifth grade paired observer was asked by her fourth week teacher to reschedule the observation to the third week because of parent conferences that precluded her teaching during the fourth week. Since ethnographer 5 was willing to accept the assignment and her experience and ability were thought to be superior, the switch was approved. To prepare herself for any variance between fifth and second grade classrooms, she conducted a "warm-up" paired observation with ethnographer 11 on Monday. No unusual situations arose, and she began regularly scheduled paired observations on Tuesday.

Initially, the paired observation process was instituted to serve as a system for monitoring the ethnographers' procotols. The director of Special Study A hoped to "check in" with the protocols as they were being produced and monitor them for format, adherence to Henry's "A Cross-Cultural Outline of Education," quality of information, focus of the ethnographer, etc. In practice, this proved not to be feasible. The turn-around time between observation, dictation onto a cassette, forwarding to the Laboratory, transcription into a typewritten protocol was approximately one to one and one-half weeks. This meant that by the time a protocol was ready to be read, the ethnographer would already be observing in his next classroom.

However, the richness of data collected through paired observation has given rise to another possibility. One of the ethnographers who worked on Special Study A requested and received permission to analyze the sixteen pairs of paired observations as the basis for his own research work. The objective is to code the protocols and then analyze them to determine to what degree ethnographers were recording similar events. When finished, this study will be presented to the Commission as a separate but important addendum to this report.

Observation Procedures and Data Production

The discussion of observation procedures and data production includes data sets, observation focus, observer's role, and protocol production.

Data Sets. Ethnographers produced a set of data for each classroom they observed: formal protocols, informal protocols, and a summary profile.

Formal protocols were based on notes taken during the teaching of reading and mathematics. For this purpose, ethnographers used standard spiral bound, lined stenographers' notebooks. During formal observation, the teacher and students could see that the ethnographer was taking notes. The ethnographer attempted to produce one formal protocol each day for both the reading and mathematics lessons.

Informal protocols, based on data collected outside of reading and mathematics instruction, were produced at least three times during a week of observation. They were developed as a result of interviews, classroom observation at times when reading and mathematics were not being taught, and observation outside the classroom. For these informal protocols, ethnographers were not allowed to take notes. Instead they listened carefully to what transpired and then, at various times during the day when they could not be observed, entered the information in their notebooks. Often, this had to wait until the end of the day, requiring the ethnographers to rely on recall.

The *summary profile* was produced after observation of a classroom was completed. It was based on those categories from Henry's "A Cross-Cultural Outline of Education" which the ethnographer found applicable. (For an example, see Appendix C.)

In addition, the ethnographers drew a map of each classroom on their first day of observation. The maps depicted seating arrangements, location of learning stations, bulletin boards, charts, posters and the like on walls--in effect, the physical learning environment. These maps became part of the total ethnographic profile for the classroom. (See Appendix C.) Lesson schedules and instructional materials also were examined and reported. They were not removed from the classroom, however, even if the teacher offered some item such as a duplicated worksheet. This practice helped to assure the teachers that they were only being observed, not judged.

The total number of protocols (formal and informal) produced in the data set for a given classroom varied between eleven and fifteen, depending on the regularity of the week's schedule--whether or not there were interruptions in the normal classroom routine in the form of field trips, assemblies, testing, etc. In total, forty data sets were produced--twenty each at the second and fifth grade levels.

Observation focus. The ethnographers focused on the teacher and especially his interaction with a few students "who were doing well" and a few students "who were having problems" (Rist, 1973). This system--focusing on teacher, students doing well, students having problems--was established early in the week, usually the first day, when the ethnographer asked the teacher to identify two students "who were doing well" and two students "who were having problems." The teacher could answer using any criteria he chose. He was told that the information was needed so the ethnographer initially could focus on a few students since with only a week to observe, the ethnographer wanted to become familiar with the class as quickly as possible.

The initial purpose in identifying particular students was to watch for differential treatment of students by the teacher and differential responses by those students to the teacher. Ethnographers needed this information to capture differential teacher treatment if it existed. However, other students were not eliminated from observation since observation focused on the teacher.

Thus, the one way a student might not be observed was if he had been ignored by the teacher; even then, ethnographers were quick to observe and record this fact.

To make his observations and notes specific, the ethnographer needed to know the students' names. Therefore, the students in each classroom were photographed in groups of four a month in advance of observation. The photographs were then mounted on 8-1/2" x 11" cards with the students' names printed beneath and given to the assigned ethnographer midway through the week prior to entry. (In some instances, school district guidelines or individual religious beliefs did not allow for this so that not all children in all classrooms were represented on photo cards.)

The ethnographers observed and recorded as faithfully as they could the interactions that took place within the classroom. They captured dialogue, inflection of voice, attitudes and physical actions of the participants, etc., along with as much else about life in the classroom as possible. Time and noise level also were regularly recorded during formal observations. Time was noted as frequently as possible and at least every six minutes during formal observations. Noise levels, established during training, were:

<ins>Noise Level 0</ins> = silence, or teacher or one student talking during a lesson

<ins>Noise Level 1</ins> = normal hum of working classroom

<ins>Noise Level 2</ins> = higher than average; intrusive; above teacher's tolerance level.

Ethnographers had no difficulty establishing Noise Level 0. The difference between Noise Levels 1 and 2 was directly dependent on the teacher's tolerance level. In other words, Noise Level 2 had been reached when the teacher became aware that the students were becoming too of himself in small ways (Rist, 1975). Ethnographers thus were encouraged to "help," *so long as it did not interfere with data collection.* For example, a student might ask the ethnographer for help, especially in a classroom in which students had been encouraged to seek assistance from adults such as teacher aides or volunteer parent aides. The ethnographer had to assess each instance and decide what response he could make without affecting data collection. In general, reciprocity centered about this notion of helping, being polite, using "hello's" and "goodbye's," displaying sensitivity to teachers' concerns that an observer must remain in a classroom the whole day to get the benefit of the *gestalt* of classroom life, being friendly to teacher and students without being obtrusive, being a good listener, and being supportive of what one is told.

Protocol production. At the end of each day, ethnographers dictated their notes into portable cassette tape recorders provided by the Far West Laboratory. The tapes were mailed to the Laboratory in specially prepared pre-paid mailing envelopes and transcribed by a team of stenographers trained for the task. The product was a protocol consisting of a typewritten, single space, 8-1/2" x 11" page with a left-hand margin of approximately 3-1/2". Each line was numbered (as was each page and protocol) to provide easy access and retrieval of the data. See Figure 1 for an example.

At the top of the first page appears the protocol number. Protocols were numbered consecutively, beginning with the first day of observation in an ethnographer's first assigned classroom and ending with the last day of observation in the last assigned classroom. Each formal and informal protocol was numbered individually.

On the second and third lines of the first page the name of the ethnographer and the date of the observation are entered.

FIGURE 1

Excerpt from a Protocol Produced for Special Study A

Protocol Number: 06
Name of Researcher: Gail
Date of Observation:
Subject of Observation:

2nd Grade Class, Open Classroom, with two team teacher and two other adults, this is a joint observation with Elizabeth. I will be observing two reading groups today, simultaneously, including 9 children. Out of the nine children, 2 are girls, 7 are boys.

8:30 Noise level 2
At 8:30 the noise level is 2. The children have just been let into the classroom, taking their coats off and wandering around the room. Several boys are in the corner fighting, and some girls are sitting on the floor playing a puzzle. The teacher is walking back and forth in the back of the classroom not attending the children. The noise continues and the children are running around. There is much confusion in the room. Two teachers
8:35
stand at the desk talking to one another. At 8:35, Mrs. Tyler leaves the room. The team teacher stays seated behind the classroom at her desk. At 8:40 Mrs. Tyler comes back into the room. She walks to the desk at the far left hand side of the classroom, which is a round table, and sits on the edge. She says "Blue Group, get your folders and go up in the front. Green Group, come here." Noise level drops to 1, and the children begin to follow her orders. She says, "Anybody loose a quarter ." No one responds, and she repeats the question again with irritation in her voice. She says I know someone found , someone lost a quarter because it was found in the coat room. Look in your pockets and see." No one says anything. She now stands up and pulls a pile of workbooks from across the table over to her. They are the ________ reading workbooks. She opens one of them on the top and says, "Ah Daniel!" She says this with a loud sharp voice. She continues, "Your work yesterday was not too bad but you need some work. Evidently there are still some words you don't understand." She thumbs through the rest of his lesson. Danny is standing at the outside of the circle around her, not listening to what she is saying. Mrs. Tyler now stands and gives instructions to the Green Group. She tells them to go through 8 through 13, reading the two stories between those pages and to go over the work in the workbooks that she is about to give back. She tells them that they may seat any place but not together and she says, "And I don't want any funny business." She now opens the next workbook which is Nicolle's. She tells Nicole that she is having the same problem that Danny is having without specifying further. Nicole looks up at her with an expectant look on her face. She then looks at a third book and says Michelle you're having the same problem. She says, "Snatch means to grab. Beach, what does it mean? Michelle doesn't answer. She has her finger in her mouth and looks anxious. The teacher closes the workbook and pushes it to Michelle. Michelle takes it and walks away, with Nicole. Teacher then opens the next workbook and says, Mike, I don't appreciate all these circles. She points

On the fifth line of the first page, starting with the line numbered "1," begin descriptive details such as grade level, number of students with breakdown by sex, ethnic, and racial background when possible, subject or lesson content, and who is doing the teaching. If it was a joing observation with a second ethnographer serving as a paired observer, this information also was given.

Formal dictation of the protocol began with establishing the time and rating the noise level in the classroom. The narrative followed immediately, continuing in typewritten form through line 55 and then on to succeeding pages. On the succeeding pages, with lines numbered 1-57, only the page number, protocol number, and ethnographer's name appear at the top.

These typewritten protocols were the end product of the data collection process.

Trustworthiness of the Data

Inherent in the use of multiple ethnographers for the collection of qualitative data from multiple classroom settings is the question of whether the data is trustworthy, i.e., to what degree are the classroom protocols faithful records of the events and activities as they occurred? To couch the discussion of the reliability of the data collected in this manner is to reverse the emphasis traditionally given by educational researchers to the issue of reliability. Whereas in quantitative studies utilizing observational schemes, rating sheets, etc., the emphasis is upon the reliability of the observer, in the present instance the emphasis is upon the data that was collected and whether it can be believed to be a faithful representation of the observed situation. Thus, the issue is not the one of establishing the reliability of a particular ethnographer or how that ethnographer stood in terms of inter-rater reliability against other ethnographers, but whether the protocols developed by ethnographers provide us with an accurate description of the classroom.

It is therefore germane to this discussion to reflect momentarily on the ethnographic methodology focus.

Earlier in this report, Campbell is quoted as contrasting the ethnographic data-collection methodology with traditional data-collection methodology derived from research in psychology. He characterizes them by referring to the evidence they produce as *qualitative* and *quantitative* data, i.e.,

> For *quantitative* read also scientific, scientistic, and *naturwissenschaftlich*. For *qualitative* read also humanistic, humanitistic, *geisteswissenschaftlich*, experiential, phenomenological, clinical, case study, field work, participant observations, process evaluation, and common sense knowing. (Campbell, 1974)

The two are best contrasted by Glaser and Strauss (1967) and Lutz and Ramsey (1974), also cited earlier in this report but important to the present discussion and therefore worthy of review. Traditional methodologies in educational research, derived from experimental pscyhology, generally focus on the *testing* of hypotheses (Glaser and Strauss, 1967). That is to say, an educational psychologist would most likely go about the study of teaching by identifying those variables to be studied; hypothesizing under what conditions they are most likely to occur; setting up an experimental situation in which they can be operationalized and studied (or developing an observation instrument, training observers to use it, and using it in the naturalistic setting of functioning classrooms); and counting the frequency or otherwise quantifying the degree to which they occur. Analysis of such data is often dependent upon the degree of variance among classrooms in order to explain a phenomenon or to validate its existence and frequency.

To contrast, the ethnographic methodology derived from research in anthropology and sociology focuses on the *development* of hypotheses rather than the *testing* of them (Glaser and Strauss, 1967). Drawing on the techniques of nonparticipant observation or participant observation, the ethnographer enters the classroom setting with some tentative assumptions--or in Special Study A, some common, organizing concepts--drawn from the theories of the social sciences. These

> . . . serve as guides to the researcher who is not wed to them or predisposed to prove them. They explicate relationships that might exist and thus direct first efforts at data collection in the field. As data are gathered these assumptions are refined, conditions of verification and exceptions are noted, checked, rechecked, and the statements refined to correspond with the empirical fact. (Lutz and Ramsey, 1974)

The important extrapolation from Campbell is that just as there are different ways of "knowing" there are different means by which to assess the accuracy and validity of that which is known (Campbell, 1974). While statistical analysis may be appropriate in those circumstances where a series of assumptions are made about the linearity of data, the existence of normally distributed populations, etc., this mode appears particularly inappropriate to confirm or deny the trustworthiness of data collected out of a very different set of assumptions about social reality and the manner in which one attempts to assess social relations. In short, this present study does not posit that it is necessary to "prove" in the traditional, statistical sense that the data here are worthy of consideration and that they do accurately portray the classrooms in which they were collected. By refusing to grant the assumption that statistical realities necessarily coincide with cultural realities, we do not believe we must justify our study of the latter with tabulations of the former.

We were not concerned if all of our observers did not observe the same phenomena. If there are multiple sets of realities and multiple ways of coming to understand them, then training observers to focus in only one way and with only one framework in mind negates the possibility of learning of the richness and diversity within the classrooms. As our task was to generate new variables for explaining teaching effectiveness, we thought it best if our observers represented a diversity by age, sex, ethnicity, and language. In this way we hoped to gain descriptions of the classrooms which were both accurate of the events within them, as well as a focusing on particular nuances and interactions evident to the sensitive observer. Analysis of the protocols thus produced centers not only on the variance of phenomena among classrooms, but on their commonalities across all classrooms. Data collected from classrooms of the Known Sample which produced protocols for analysis in Special Study A, for instance, were in reality records of phenomena which had occurred. If a phenomenon varied among classrooms or remained common in all of them, such a characteristic was the result of analysis of the protocols rather than a set hypothesis to be operationalized in observation.

The ethnographers for Special Study A used Henry's "A Cross-Cultural Outline of Education" (Henry, 1960, see Appendix A) as their set of "organizing concepts" for studying the classroom. The function of such a set of concepts was to provide a systematic means for reporting phenomena by setting parameters for that which was to be observed. In fact, Henry's outline is more a *descriptive organizer* of the characteristics and interactions one might encounter in a situation labeled "formal schooling" rather than a *prescriptive observation schedule,* pre-determined and delimiting for purposes of observing only certain phenomena when they occurred and ignoring all other phenomena. Thus, it was as an organizer that Henry's outline was used.

In essence, then, Special Study A purposefully incorporated the use of ethnographic data-collection methodology. In doing so, it was hoped that qualitative, descriptive, open-ended protocols which recorded the characteristics and interactions of the teachers and the students in the classrooms of the Known Sample would yield productive information. It is this use of the sensitive, trained observer to study the classroom that brings strength to a study like Special Study A, for it allows for the possibility of describing the context of the society of a classroom for which much quantitative information has also been gathered in a variety of ways.

The trustworthiness of the data collected, then, rests with four essential and important factors. First, there is the trust placed in the ethnographers. As pointed out earlier, ethnographers were recruited from graduate programs in anthropology and sociology. In selecting them, a great deal of time was spent interviewing all applicants, and emphasis was placed on actual ethnographic data collection experience. Ethnographers selected thus satisfactorily demonstrated both a commitment to their profession as well as field experience. Further confidence in ethnographers was developed during their training, when concentration was placed on "honing" their ethnographic skills. This meant focusing both on the technical aspects of ethnographic data collection as well as on the familiarization of ethnographers with the field setting in which they would be observing. During training, ethnographers demonstrated to the satisfaction of the ethnographic expert in charge of training those skills of observation and reporting, as well as a familiarity with the field setting in which data would be collected. Finally, during the period of data collection, ethnographers demonstrated their professional ability and commitment by carrying out all assignments with the utmost skill and reliability.

Second is the quality of the protocols produced by the twelve ethnographers. As descriptions of classroom settings, the protocols are not grossly disparate or dissonant with other similar descriptions of schools and classrooms. Thus, schools and classrooms are real and recognizable as depicted in the protocols, and descriptions of teacher/student interactions are similarly comparable. In fact, there was not a single instance during data analysis when a member of the dimension generation team or a rater challenged the "realness" of the protocols. Further, the cumulative impact of all daily observations was such that raters easily could establish patterns through the descriptive, repetitive sequences of behavior and interaction depicted in the protocols. The "goodness of fit" between how the twelve Special Study A ethnographers describe the school setting and how other protocols have done the same thus further substantiate the trustworthiness of the data.

Third, the descriptions of classroom behavior contained in the protocols are lucid and specific enough so that the independent team of people could generate at least 61 ways which discriminated between the more effective teachers and the less effective teachers of the Known Sample. This was reaffirmed when the 20 raters, working independently after being trained to recognize each of the 61 Dimensions, compared the protocols of the classrooms of the Known Sample and made judgments which discriminated between the two ends of the Known Sample continuum.

Finally, and perhaps most importantly, the protocols, which represent Special Study A data collected for the classrooms of the Known Sample, establish qualitative evidence to support the quantitative means used for identifying the more effective and less effective teachers of the sample. Working "blindly," i.e., without knowledge of the characteristics of the Known Sample, raters were able to discriminate between the more effective and less effective teachers in such a way that 21 of the 61 dimensions correctly sorted the Known Sample generically (at both the second and fifth grades for both reading and mathematics). The remaining forty dimensions discriminated the sample in a variety of ways, and did so correctly in terms of the identification of the Known Sample by measured effectiveness. It is thus evident that the data for Special Study A correlates highly with the quantitative measures on which the Known Sample was established.

Data Analysis

For each classroom of the Known Sample, a set of descriptive data had been produced. Each data set consisted of formal protocols, produced from observation of the teaching of both reading and mathematics; informal protocols, produced from observation at other times--in interviews with teachers, at recess, in the faculty room, etc.; and a summary profile, organizing the data collection from each classroom along the lines of Henry's "A Cross-Cultural Outline of Education." It was these sets of descriptive data for the forty Known Sample Classrooms that were used for purposes of analysis.

Analysis of the data was accomplished in two phases. In the first phase, a team of six people read the protocols in order to generate a set of dimensions which could serve to discriminate between the protocols for a given pair of classrooms from opposite ends of the more effective/less effective teachers continuum which characterized the Known Sample. In the second phase of data analysis, twenty raters--working in two teams of ten each--compared pairs of protocols using a rating instrument developed to incorporate these dimensions that had been generated. The discussion which follows details each of these two phases of data analysis.

Generation of Dimensions for Differentiating Protocols

The primary purpose of Special Study A was to identify teacher, student, and instructional characteristics in the teaching of reading and mathematics at the second and fifth grades that would help to explain previously determined characteristics of the Known Sample. In order to achieve this purpose, the characteristics identified had to discriminate between the classrooms at opposite ends of the Known Sample effectiveness continuum, either by their presence or by their absence. The first task, then, was to generate a pool of such discriminating teacher, student, and instructional characteristics.

To generate discriminating characteristics, a team of six people was selected to work with the director of the Beginning Teacher Evaluation Study and the director of Special Study A. The team was composed of a senior researcher at the Far West Laboratory; two school district personnel, one a resource teacher and the other a curriculum coordinator, both working in the elementary grades; a graduate student in educational psychology; and two of the ethnographers used to collect data for Special Study A. Members of the team were selected because they brought to the task interest and background from three primary sources: educational research and psychology, the schools, and anthropology or sociology.

For a period of nine days, each person was assigned to read two sets of protocols daily, each set containing protocols for one more effective and one less effective teacher in the Known Sample. The protocols were assigned randomly, and the team members worked independently. Their task was to identify as many teacher, student, or instructional characteristics as possible that discriminated between the two classrooms in a set. Discrimination could be based either on the absence or presence of a characteristic or on the degree of its presence. Some members of the team knew that the teachers differed on the basis of being more or less effective, but no one knew which teachers were identified as being more effective and less effective.

Protocols were marked or coded any way that a team member found helpful, and characteristics were recorded on 5-1/2" x 8" cards (Figure 2). Information was given on these cards to identify the characteristic by a label; to define what it was; to define what it was not; and to give examples of what it looked like in the classroom; and of what it was not.

FIGURE 2

Teacher, Student, or Instructional Characteristics Card for Recording Dimensions

We are looking for THINGS THAT DISCRIMINATE BETWEEN CLASSROOMS. When you find one DESCRIBE IT:

A. What it is and/or looks like (descriptors, characteristics, connotations, synonyms)

B. What it is not (antonyms, descriptors, characteristics, non-examples)

GIVE EXAMPLES:

1.

2.

3.

LABEL IT: ______________________________

At the close of each day, the team met for two or three hours to share and discuss the characteristics they had generated. Questions were raised and answers sought, examples were clarified and added, and like characteristics were combined. All of the characteristics generated for the day then were added by label to a master list to which team members could refer the following day. The scheduling of these two activities--generating characterisitics by reading protocols and discussing them for purposes of refinement--was varied to make the task as comfortable as possible. On some days, when protocols seemed longer and characteristic generation seemed productive, discussion was put off until the next morning.

At the conclusion of nine days of generating characteristics, 211 teacher, student, and instructional characteristics had been identified and described. These 211 characteristics are reported in Table 5, labeled in the exact language used when the characteristics were generated.

TABLE 5

211 Teacher, Student, and Instructional Characteristics Generated by Dimension Team

1. Transition/easing in
2. Concern for physical environment of classroom
3. Emphasis for private work
4. Complimenting as control
5. Promoting self-sufficiency
6. Explaining praise
7. Expressing optimism
8. Teacher feels lack of importance
9. Inconsistency in behavior
10. Teacher inattentiveness
11. Negative attitude toward curriculum materials
12. Goal clarification
13. Process orientation
14. Differential treatment by category/stereotyping
15. Depersonalization
16. Teacher expresses legitimate authority
17. Product orientation
18. Student self-defense
19. Emphasis on interpretation
20. Students express affection towards each other
21. Guilt/shame
22. Review/recall
23. Praising behavior
24. Use of affectional terms or affection
25. Smoothness
26. Peer teaching
27. The right to win
28. Internalization of classroom norms
29. Boredom disattention
30. Neglect of subject matter
31. Humorous sponteneity
32. Time rigid structure
33. Flexibility
34. Group alerting
35. Moralizing
36. Utilizing resources
37. Being liked
38. Monitoring learning
39. Overlapping
40. Withitness
41. Student rejecting/resisting
42. Pause/rhetorical questions
43. Competition
44. Beating
45. Gendering
46. Sense of shame
47. Illogical threat
48. Pointless teacher statements
49. Teacher non-verbal signal for controlling
50. Teacher autocracy
51. Social isolates
52. Relation of material to personal selves
53. Signals for order
54. Acceptance of feelings and attitudes
55. Protectiveness
56. Social closeness
57. Respect accommodation
58. Physical punishment (harrassing)
59. Flexibility
60. Expectancy (blaming the victim)
61. Prompting
62. Utilizing resources
63. Learning with variety
64. Sponteneity
65. Pacing
66. Rituals
67. Sarcasm
68. Hostility
69. Differential treatment of individual
70. Regimenting
71. Teacher authoritarianism
72. Teacher concern for student feelings
73. Reacting to student questions
74. Pursuing for thinking process
75. Discipline freak
76. Psychotic autisms
77. Guessing questions
78. Inter-student aggressiveness
79. Cooperativeness among students
80. Tacit permissiveness for student movement
81. Masking emotions
82. Socializing about obeying authority
83. Teacher encouraging speed
84. Inappropriate pacing
85. Inattentiveness to student needs
86. Distribution of responsibility
87. Lack of awareness of learning rates
88. Effective voice
89. Reasonableness of commands
90. Exclusion/isolation as control
91. Student defiance
92. Accepts own error/explanations not clear
93. Tactlessness
94. Loss of composure
95. Lack of mobility
96. Mixed messages
97. Conviviality
98. Modeling
99. Children are evil
100. Encouraging
101. Procedural flexibility
102. Distributes responsibility/shares responsibility
103. Teacher degradation of students
104. Teacher centrality

TABLE 5

211 Teacher, Student, and Instructional Characteristics Generated by Dimension Team (continued)

105. Structuring by teacher
106. Teacher changes activity abruptly
107. Teacher's time fixedness
108. Teacher lack of responsiveness
109. Teacher responsiveness
110. Teacher role clarity
111. Teacher constancy of message
112. Teacher modeling and student imitation
113. Teacher asks for different tasks according to sex
114. Adult standards for children
115. Pointless teacher statements
116. Teacher threats and ultimatums not carried out
117. Teacher threats and ultimatums carried out
118. Teacher lacks knowledge of subject area
119. Student's decoding teacher's intent
120. Disattention
121. Teacher's developmental awareness
122. Cross age tutoring
123. Teacher diagnosis and prescription
124. Teacher emphasized cooperation
125. Teacher accepted student's approaches
126. Teacher insecurity
127. Teacher's positive communication of race, class
128. Students used teacher's last name
129. Mobility of teacher
130. Teacher handles hostility
131. Teacher's emphasis on orderliness
132. Teacher's emphasis on cleanliness
133. Value conflict
134. Teacher's positive rewards
135. Teacher's punishment
136. Teacher's cultural promises
137. Teacher shares decisions
138. Teacher diagnoses and prescribes for math
139. Teacher's control by peer pressure
140. Teacher's personalization
141. Student eagerness
142. Reading specialist
143. Teacher uses aides for reading
144. Successful students known by peers
145. Good readers known by students
146. Identification of successful students by teacher
147. Student independent learning
148. Free mobility of students
149. Teacher recognition seeking behavior
150. Teacher's desk used for security
151. Cooperation of students
152. Restrictive seating arrangements (spatial rigidity)
153. Teacher politeness
154. Teacher's failure to correct student errors
155. teacher emphasis on discipline and control
156. Explaining manners (socialization)
157. Instructional activities predominating
158. Emphasis on housekeepping duties
159. Equality emphasized by teacher
160. Student(s) manipulate teacher
161. Students' freedom to laugh
162. Teacher enjoys teaching
163. Teacher evokes student participation
164. Student's attentiveness
165. Student's decoding teacher's intent
166. Teacher lack of responsiveness
167. Teacher's responsiveness
168. Role clarity
169. Consistency of message
170. Teacher modeling and student imitation
171. Confused students
172. Voting
173. Student's elation of own correct response
174. Instruction by manipulation of materials
175. Teacher uses aides for math
176. Continuity
177. Repetition or memory as instructional technique
178. Filling time
179. Teacher participates in routine tasks (equalizing)
180. Teacher as consultant
181. Student in charge of class
182. Cooperativeness between students
183. Seating structure discourages peer teaching
184. Teacher inability to tolerate children
185. Democratically run classroom
186. Appropriateness of tasks
187. Engagement
189. Sponteneity on the part of students
190. Clearly stated directions
191. Social closeness
192. Inappropriate expectations
193. Practice and recitation of material (continuity)
194. Contract teaching
195. Rigid spatial structure
196. Teacher inability to carry out lesson
197. Teacher threats follow-through inconsistent
198. Rush to finish
199. Putting heads down
200. Teacher's emphasis on orderliness
201. Student recognition seeking behavior
202. Teacher gives an example
203. Reading in unison
204. Teacher insecurity (II) vs. #126
205. Teacher recognition seeking (II)
206. Cooperativeness (II)
207. Student responsbility for self
208. Pupil orientation
209. Modeling (II)
210. Demanding proof
211. Students' open resistance

The next step in the procedure was to refine the characteristics. During the discussions as the team tried to explain and define each characteristic as carefully as possible, it became obvious that many of the characteristics were duplicates. In some instances, the same characteristic appeared under two or three lables. In others, several characteristics actually were points along a continuum between more or less of some generic characteristic. And often, two characteristics were found to be opposites of each other. Thus, further refinement seemed desirable.

Four days were spent in this activity. Time was spent in extensive discussion of (1) combining, refining, and reorganizing the list of teacher, student, and instructional characteristics so that all characteristics were included and no duplications appeared; and (2) combining the language of all characteristics that seemed to be related in order to compose what team members called a "dimension" and adding language to describe each more completely. The result was a list of 61 Dimensions selected by the team on the basis of their judgment and experience with reading the protocols. This list was used to compare the classrooms of the Known Sample.

The full description for each of the 61 Dimensions appears as Appendix E. To assist the reader in understanding the comparison of Known Sample classrooms by raters, however, Table 6 lists and briefly defines the dimensions. They are listed in alphabetical order as a means to achieve random sequence and to avoid clustering similar dimensions.

TABLE 6

61 Dimensions for Comparing Known Sample Classrooms for Special Study A

1. abruptness (T): unanticipated "switching" by teacher, e.g., from instruction to classroom management, to behavior management, to instruction, to behavior management.
2. accepting (T): teacher reacts constructively (overt, verbal, non-verbal) to students' feelings and attitudes
3. adult involvement (C): adults other than the teacher are allowed to instruct.
4. attending (T): teacher actively listens to what a student is saying, reading, reciting.
5. awareness of developmental levels (T): teacher is aware of a student's emotional, social educational needs and therefore assigns tasks appropriate for these.
6. being liked (T): teacher seeks approval from students in an ingratiating manner, often at expense of instruction.
7. belittling (T): teacher berates child in front of others.
8. competing (T): competition, outdoing others is emphasized by the teacher.
9. complimenting (control) (T): teacher's action reinforces student(s) whose behavior is in the right direction.
10. consistency of message (control) (T): teacher gives a direction or a threat and follows through with it.
11. conviviality (C): warmth, family-like quality to classroom interaction; good feelings between teacher-students, students-students.
12. cooperation (S): students cooperate with other students, teacher; willingness on part of students to help each other.
13. defending (T): teacher defends a student from verbal or physical assault by another.
14. defiance (S): a student's open resistence to teacher direction; refuses to comply.
15. democracy (T): teacher provides opportunities to involve students in decision-making re class standards, instruction, procedures, etc.
16. distrust (T): teacher expresses doubt for validity of student's work or behavior.
17. drilling (T): teacher emphasizes regularization, rote memory, retrieval of facts on part of student learning.
18. encouraging (T): teacher admonishes student effort in order to motivate them.
19. engagement (S): students express eagerness to participate, appear actively, productively involved in learning activities.
20. equity (T): teacher appears to divide her time, attention equally among all students.
21. ethnicity (T): teacher expresses positive, informative comments about racial, class, ethnic contributions; encourages class discussion about cultural contributions.
22. excluding (T): teacher banishes student from class activity--to corner, cloakroom, out of room, etc.
23. expectation (T): teacher attributes scholastic problems or predicts success for student on basis of past information or student's "background."
24. filling time (T): teacher fills "empty" time periods with "busy work".
25. flexibility (T): teacher adjusts instruction easilty to accommodate change in plans, time schedule, absenteeism, or change of students' behavior.
26. gendering (T): teacher assigns roles on basis of male or female (boy-girl) and reinforces these.
27. harrassing (T): teacher taunts, pesters, nags, hazes, "puts down," or physically hits a student.
28. ignoring (T): teacher appears to deliberately "not hear" or "not see" so as to treat a student as being invisible.
9. illogical statements (T): teacher makes a statement whose consequences would be ridiculous if carried out.
0. individualizing (T): teacher assigns to each student learning tasks designed to match his/her individual abilities and interests.

TABLE 6

61 Dimensions for Comparing Known Sample Classrooms
for Special Study A (continued)

31. job satisfaction (T): teacher seems to enjoy teaching.

32. knowledge of subject (T): teacher seems confident in teaching a given subject, and demonstrates a grasp of it.

33. manipulation (S): student is able to get on demand a desired response from the teacher.

34. mobility (S): students move freely and purposefully around the room; teacher allows students to work at places other than at their assigned seats.

35. mobility (T): teacher moves spontaneously about the room.

36. modeling/imitation (S): students copy teacher's behavior, and are encouraged to do so by teacher.

37. monitoring learning (T): teacher checks in on student's progress regularly and adjusts instruction accordingly.

38. moralizing (T): teacher emphasizes goodness vs. badness, verbally expresses ideal behavior model.

39. oneness (T): teacher treats whole group as a "one" often in order to maintain peer control.

40. openness (T): teacher verbally acknowledges to students feelings of anger or frustration, admits mistakes, expresses need for self-improvement.

41. open questioning (T): teacher asks questions which call for interpretive responses and are open-ended.

42. optimism (T): teacher expresses positive, pleasant, optimistic attitudes and feelings.

43. pacing (T): teacher appears to perceive learning rate of students and adjusts teaching pace accordingly.

44. peer teaching (S): students help other student instructionally and are encouraged to do so, whether "olders" with "youngers" or students of same age group.

45. personalizing (T): teacher calls on students by name.

46. policing (T): undue emphasis on quietness, orderliness, good behavior, and teacher spends disproportionate time with monitoring student behavior and controlling for discipline.

47. politeness (T): teacher requests rather than commands, uses "please" and "thank you", encourages same in student-student interaction.

48. praising (T): teacher verbally rewards student.

49. promoting self-sufficiency (T): teacher encourages students to take responsbility for their own classwork.

50. recognition-seeking (T): teacher calls attention to self for no apparent instructional purpose.

51. rushing (T): teacher does not give students adequate response time, or answers for them; is tied to a pre-set time limit, and hurries students to finish work.

52. sarcasm (T): teacher responds in a demeaning manner, uses destructive/cutting remarks.

53. shaming (T): teacher instills guilt in students for their behavior in order to establish control.

54. signaling (control) (T): teacher uses body language, non-verbal signals to change students' behavior.

55. spontaneity (T): teacher capitalizes instructionally on unexpected incidents that arise during class time.

56. stereotyping (T): teacher labels and judges students by socio-economic, ethnic, or racial characteristics.

57. structuring (T): teacher prepares students for lesson by reviewing, outlining, explaining objectives, summarizing.

58. teacher made materials (T): teacher provides instructional materials other than textbooks, and arranges for their use by students.

59. time fixedness (T): teacher emphasizes promptness, begins and ends activities by clock rather than by student interest.

60. waiting (T): after asking a question, teacher waits in silence for student responses or waits in silence after student response before reacting.

61. warmth (T): teacher seeks contact with students, talks with them shows affection toward them.

Figure 3 illustrates the full description of a single dimension. Each dimension was represented by its label in upper case letters (ABRUPTNESS), followed by an indication of its designated characteristic area. In Figure 3, the (T) indicates that abruptness was perceived as a teacher characteristic. The discussion then is broken into two divisions, "We mean" and "We do not mean."

In the first, the definitions given were as situational as possible, and examples were taken directly from the protocols of the Known Sample. Unless the characteristic occurred frequently enough in the protocols and also differentiated between the two classrooms being compared in a set for dimension generation, it did not appear as one of the 61 Dimensions. In the second part of the definition, "We do not mean," care was taken to illustrate through both definition and example either the opposite of "What we mean" or a non-example of "What we mean." In this instance, the opposite of abruptness is smootheness and no non-examples were necessary.

It is easy to see in Figure 3, then, the opposite ends of a dimension called "abruptness."

Perhaps it may be useful to cite one example of how a group of characteristics became a single dimension. In Table 5, items 163, 171, and 173 were combined with item 187, "Engagement." Engagement is a student category and, as a dimension, denotes that students appear to be actively, productively, and positively involved in a learning activity. The four other items were felt to fit somewhere along the continuum within the dimension called "Engagement (S)." Items 163 (teacher evokes student participation) and 173 (student's elation of own correct response) seemed to go together and on the basis of the examples foudn in the protocols, which were the same examples as those of item 187 (engagement). Both items 163 and 173 also were evocative of resultant student behavior at the

FIGURE 3

Example of a Dimension

ABRUPTNESS (T)

We mean:

- -- teacher changes from one activity or lesson to another without advising students
- -- unanticipated change without "tying up" what was in progress
- -- pupils surprised or confused by teacher's change in behavior
- -- teacher switches from instruction to behavior management and back again

Examples:

1. Teacher, "Okay, get out your readers and turn to page 195." Students, "But we haven't finished our math worksheet." Teacher, "Sorry, maybe you can find time to do it later."

2. During reading lesson, teacher is listening to students in a small group reading aloud. Several times she interrupts whoever is reading in order to administer discipline to someone in another part of the room.

3. Students have been working diligently, but noisily. After several warnings, teacher says, "All right. Put your books away. Since you already know the materials, it's quiz time."

We do not mean:

- -- smooth transition between work periods
- -- eases in from one activity to the next

Examples:

1. Teacher makes sure that students understand what they are to do before starting the activity.

2. Teacher systematically monitors work, gives assistance when or before it is needed.

3. Before math begins students may get a drink and relax for a moment. Then they get their math books and papers and begin their work.

positive end of the continuum. Item 171 (confused students), however, was more an example toward the negative end of the continuum, or more an example of what "We do not mean." Examples from the protocols of this characteristic exhibited non-attentive student behavior that one might see in students who were not "on task." These items were included in "Engagement (S)," then, because it was felt that they related to and were part of the same student dimension.

One point becomes apparent in examining the 61 Dimensions. Some appear to be positive; some, negative; and some, neutral. This, in fact, is the basis on which they were perceived by the team which generated the items. However, although the label may appear to be either positive or negative, it is important to note that both ends of the continuum for that dimension were defined. This becomes important to the discussion which follows about the rating of classrooms.

Comparisons of Classrooms in the Known Sample

It will be remembered that forty classrooms composed the Known Sample--twenty at the second grade level and twenty at the fifth grade level. Each grade level sample included ten classrooms whose teachers were identified as "more effective" by Known Sample procedures and ten classrooms whose teachers were identified as "less effective." For all of the classrooms, protocols were collected for the teaching of both reading and mathematics and summary profiles were developed.

Sixty-one dimensions which discriminated between the classrooms of the more effective and less effective teachers were generated by a team of six people. As described in the preceding section, this was accomplished by reading the protocol materials in paired sets--one more effective and one less effective--and determining those teacher, student, and instructional characteristics which distinguished one teacher or classroom from the other.

An instrument was then developed and a pool of twenty raters trained to compare the protocols of the more effect and less effective teachers on each of the 61 Dimensions. That process is described below in terms of (1) classroom comparison instrument; (2) training of raters; and (3) assignment of raters to protocols and rating procedures.

Classroom comparison instrument. The first page of the instrument developed for purposes of comparing classrooms of the Known Sample is illustrated in Figure 4. At the top is a designated place for the rater's name and the date on which the comparison was being performed. "Classrooms being compared" was completed by entering those identification numerals or letters assigned to a teacher. "Grade level" was either second or fifth grade, and "Subject" referred to reading or mathematics.

The 61 Dimensions then were listed alphabetically and numbered sequentially for identification purposes. Each dimension appears with its label followed by the appropriate letter to designate whether it is a teacher dimension (T), a student dimension (S), or a classroom dimension (C). Directly to the right of each dimension is a scale from 1 to 7. Above this appear arrows, one with the word "less" pointing to the lower extremity of the scale designated by 1, and one with the word "more" pointing to the upper extremity of the scale, 7.

Use of the comparison instrument was based on these rules which were given to the raters:

(1) Read the protocols and summary profile for the teachers and classrooms you are comparing. You may mark them as you wish.

(2) When you have read the protocols, request a rating sheet from your supervisor.

FIGURE 4

Excerpt from Classroom Comparison Instrument on 61 Dimensions from Special Study A

Name of Rater: ______________________________

Date: ______________________________

Classrooms being compared: ______________ x ______________

Grade Level: ______________ Subject: ______________

1. Abruptness (T)
← less more →
1 2 3 4 5 6 7

2. Accepting (T)
← less more →
1 2 3 4 5 6 7

3. Adult Involvement (C)
← less more →
1 2 3 4 5 6 7

4. Attending (T)
← less more →
1 2 3 4 5 6 7

5. Awareness of developmental levels (T)
← less more →
1 2 3 4 5 6 7

6. Being liked (T)
← less more →
1 2 3 4 5 6 7

(3) For each dimension, first read the complete description from your handbook, then place the number (or letter) for each teacher/classroom on the scale where you think it appropriately fits.

(4) NOTE: You *may not* place both teachers/classrooms on exactly the same point on the scale. You must make the decision: which teacher/classroom evidences *more* of a given dimension, and which evidences *less*?

The training program given to the raters was directed toward enabling them to use the classroom comparison instrument according to these rules.

Training of raters. Raters were recruited from all walks of life, and care was exercised to bring as many differing "sets of spectacles" and perspectives as possible to the rating task. In addition, raters had to be able to read quickly and comprehend the protocols for two teachers, as well as perform the comparison task, in a single working day. The raters selected included social workers, a creative writer, ex-school teachers, current school teachers, a principal, a school psychologist, a political science doctoral student, graduate students in educational psychology, a community organizer, a merchant, homemakers, and an educational researcher.

Procedures during rater training are detailed next under the two subsections of (1) training tasks and (2) criterion level to which training was carried.

(1) Training tasks. The twenty raters were trained in teams of ten at the Far West Laboratory in two different sessions, four days apart. Training for each team took two days. During this period of time, raters were expected to learn to: (a) understand each dimension and identify instances of each; (b) code a single protocol, identifying as many instances of the 61 Dimensions as they could find; and (c) apply the 61 Dimensions to the protocols of a paired set of classrooms, rating them

on the comparison instrument as a simulation of the task they were to perform for the protocols of the forty Known Sample teachers.

Raters first had to become familiar with the 61 Dimensions. This was accomplished by reading aloud and discussing each dimension. Raters were asked to generate examples other than those given in the handbook, and questions were encouraged. A copy of the handbook used by the raters appears in Appendix E.

The second task was to apply the 61 Dimensions to a single protocol. For this purpose, a four-page protocol produced by a Special Study A ethnographer during training was used. Raters were asked to code the protocol for as many instances of a dimension--both what it is and its opposite--as they could identify. They worked individually at this task, then as a group compared their coding and discussed each instance in depth.

The final training task was a simulation of the comparisons raters would be making for the Known Sample. They read the protocols for two teachers--protocols produced by two Special Study A ethnographers during their training. The raters were encouraged to mark the protocols as they wished. When they had fully read and marked the protocols, they were given a copy of the comparison instrument, and studying each dimension before marking the instrument, compared the two protocols by marking the scale for each dimension.

When all the raters had completed the comparison task, their comparison instruments were tallied and an initial examination was made of their frequency rate of agreement. Each dimension was discussed thoroughly, and evidence was produced from the protocols to substantiate placement of the two teachers on the comparison scale. When discussion dwindled, raters were allowed to rescore for an item and a second tally was taken.

TABLE 7

Inter-Rater Agreement re 61 Dimensions
Applied to a Common Paired Set of Teachers' Protocols

Dimension	TEAM A: % Agreement		TEAM B: % Agreement	
	Teacher Protoco[illegible]	Teacher Protocol G	Teacher Protocol P	Teacher Protocol G
1. abruptness (T)		1.0		1.0
2. accepting (T)	1.0		1.0	
3. adult involvement (C)*	.89	.11		1.0
4. attending (T)	1.0		1.0	
5. awareness of developmental levels (T)	1.0		1.0	
6. being liked (T)		1.0		1.0
7. belittling (T)		1.0		1.0
8. competing (T)		1.0		1.0
9. complimenting (control) (T)	1.0		1.0	
10. consistency of message (control) (T)*	.11	.89	1.0	
11. conviviality (C)	1.0		1.0	
12. cooperation (S)	1.0		1.0	
13. defending (T)	1.0		1.0	
14. defiance (S)		1.0		1.0
15. democracy (T)	.89	.11	1.0	
16. distrust (T)		1.0		1.0
17. drilling (T)	1.0		1.0	
18. encouraging (T)	1.0		1.0	
19. engagement (S)	1.0		1.0	
20. equity (T)	1.0		1.0	
21. ethnicity (T)*		1.0	.64	.36
22. excluding (T)		1.0		1.0
23. expectation (T)		1.0		1.0
24. filling time (T)		1.0		1.0
25. flexibility (T)	1.0		1.0	
26. gendering (T)*	.44	.56		1.0
27. harrassing (T)		1.0		1.0
28. ignoring (T)		1.0		1.0
29. illogical statements (T)	.22	.78		1.0
30. individualizing (T)	1.0		1.0	
31. job satisfaction (T)	1.0		1.0	
32. knowledge of subject (T)	1.0		1.0	
33. manipulation (S)		1.0		1.0
34. mobility (S)	1.0		1.0	
35. mobility (T)	1.0		1.0	
36. modeling/imitation (S)	1.0		1.0	
37. monitoring learning (T)	1.0		1.0	
38. moralizing (T)	1.0		.91	.09
39. oneness (T)*	1.0			1.0
40. openness (T)	1.0		.91	.09
41. open questioning (T)*	.44	.56	.82	.18
42. optimism (T)	1.0		1.0	
43. pacing (T)	1.0		1.0	
44. peer teaching (S)*	1.0			1.0
45. personalizing (T)*		1.0	1.0	
46. policing (T)		1.0		1.0
47. politeness (T)	1.0		1.0	
48. praising (T)	1.0		1.0	
49. promoting self-sufficiency (T)*	.33	.67	.45	.55
50. recognition-seeking (T)		1.0		1.0
51. rushing (T)		1.0		1.0
52. sarcasm (T)		1.0		1.0
53. shaming (T)		1.0		1.0
54. signaling (control) (T)		1.0		1.0
55. spontaneity (T)	1.0		1.0	
56. stereotyping (T)		1.0		1.0
57. structuring (T)	1.0		1.0	
58. teacher made materials (T)	.78	.22	1.0	
59. time fixedness (T)		1.0		1.0
60. waiting (T)	1.0		1.0	
61. warmth (T)	1.0		1.0	

Team A: Mean agreement = .9672 (without 9 asterisked dimensions = .9893)
Team B: Mean agreement = .9806 (without 9 asterisked dimensions = .9965)
* Dimensions on which retraining was conducted, resulting in a subsequent minimum level of .90 agreement.

(2) Criterion level to which training was carried. The ultimate goal of training was 100% agreement among raters in rating the pair of protocols used for the simulation comparison task. This pair of protocols, drawn from those produced during ethnographer training, did not necessarily reflect observations of a less effective teacher and a more effective teacher. The effectiveness of teachers observed by the ethnographers was unknown, and therefore the paired protocols used in rater training did not necessarily evidence clear distinctions between more and less of the 61 Dimensions.

Table 7 reports the percentages of agreement reached by the two teams of raters after comparing the paired protocols used in training. The second and third columns list for Team A the percent of agreement raters reached in designating that more of a dimension was evidenced in the protocols for either Teacher P or Teacher G. The fourth and fifth columns repeat this information for Team B. Team A reached agreement for comparing the paired sets of protocols on the basis of the 61 Dimensions at .97, agreeing totally on 5[illegible] of the dimensions. Team reached agreement of .98, agreeing totally on [illegible]6 of the dimensions. Between the two teams, total agreement was reached on 50 of the 61 Dimensions.

On Table 7, nine dimensions are marked with an asterisk (*). On three of these dimensions (39, 44 and 45), the two teams scored opposite teachers as evidencing more of the dimension. The two teams disagreed as to which of the two teachers' protocols evidenced more of a dimension on the six other asterisked dimensions (3, 10, 21, 26, 41, and 49). When these dimensions are eliminated from consideration, Team A agreed at .9893 and Team B at .9965 for the remaining 52 dimensions.

Special training was provided on the nine asterisked dimensions. The two teams were brought together, and the raters reanalyzed and discussed the protocols. After this retraining, agreement among the raters reached a minimum level of .90 on all the nine dimensions. With the retraining for the nine dimensions considered, the mean agreement for all 61 Dimensions becomes .97 for Team A and .98 for Team B. Combined, the total mean agreement for both teams was .9774. Training was considered successful at this point, and the raters were deemed adequately prepared to compare protocols from the Known Sample.

Assignment of raters to protocols and rating procedures. To gather comparative data, protocols for the Known Sample teachers were organized into four groups: second grade mathematics, second grade reading, fifth grade mathematics, fifth grade reading. For each group, a matrix was developed for purposes of random assignment of the protocols for more effective and less effective teachers into comparison pairs.

Table 8 illustrates this procedure, using the second grade reading group as an example. Across the top of the matrix appear the code identification numbers for the ten second grade teachers designated as more effective. Down the left side appear the code numbers for the ten teachers designated as less effective at the second grade level. Identification numerals were randomly assigned to teachers, as was placement across and down the matrix. Each cell of the matrix represents the intersection of two teachers--one from the more effective group and one from the less effective group--whose protocols might be compared. The 10 by 10 matrix developed 100 cells or possible pairs of teacher protocols. It was decided to use only 36 of these, with 4 being compared by two raters for purposes of establishing inter-rater agreement (discussed in Chapter III).

A group of ten raters then was assigned randomly to the cells. These assignments are represented in Table 8 by capital letters. Thus rater "K" compared the second grade reading protocols of teachers 2 and 15, 4 and 18, 11 and 10, and 14 and 16. Both raters "K" and "S" compared the protocols for teachers 11 and 10. As may be seen in Table 8, the classroom protocols for each teacher were compared four times with the protocols for teachers from the other side of the matrix, each time by a different rater.

Each group of ten raters worked with both the second and fifth grades. Rating Team A compared protocols of second grade teachers in mathematics and of fifth grade teachers in reading. Rating Team B compared protocols of second grade teachers in reading and of fifth grade teachers in mathematics. No rater compared the protocols of a given teacher more than once, and no rater knew which teachers had been designated as more effective and less effective. The raters worked individually, not as a group; the rater teams were established solely for purposes of assigning protocols.

Rating was performed at the offices of the Far West Laboratory with each rater comparing one pair of protocols per day. Each day, raters were given a packet containing two sets of protocol materials for either reading or mathematics--whichever they were comparing that day--and the summary profile for both classrooms. The raters were instructed to read the materials, marking them as they wished. When they had fully read the data sets for both classrooms, they picked up a copy of the comparison instrument. For each item on the instrument, the raters first read the description of the dimension in their handbook, then looked through the protocol materials to establish which set in the pair evidenced more or less of a dimension, and finally marked the scale for that dimension. All materials, including the comparison instrument, were returned at the

TABLE 8

Assignment to Raters of Paired Comparisons of Protocols for
Known Sample Teachers
Second Grade Reading

		More Effective Teachers									
		2	4	11	14	12	8	7	20	5	13
Less Effective Teachers	15	K				S	M				R
	18		K		S			M		R	
	10			K S					N Q		
	16		R		K			Q		N	
	1	R				L	Q				N
	3	N				Q	L				T
	6		O		P			L		T	
	17			O P					L T		
	19		P		O			T		M	
	9	P				O	S				M

Capital letters in cells (K, R, etc.) represent raters assigned to protocol pairs.

end of each day. In total, each rater spent eight days on this task, four days for each subject/grade level group of protocols to which he was assigned.

The following chapter presents the results of rating.

CHAPTER THREE

RESULTS

Special Study A was designed to study the forty classrooms of the Known Sample teachers from the Beginning Teacher Evaluation Study. It used the research methodology of two of the social sciences--anthropology and psychology--in order to identify teacher, student, and instructional characteristics that could be recommended as potentially promising for describing those classrooms in which teachers seemed to be more effective, according to the operations used in the Known Sample for defining effectiveness. An ethnographic procedure was designed to utilize twelve sensitive, trained observers to observe for a period of one week in each of the forty Known Sample classrooms. Data were collected and recorded in the form of protocols which were developed for each teacher. Emphasis in observation was on the teaching of reading and mathematics, but information also was collected about informal interaction between teachers and students at other times during the school day.

A pool of 61 Dimensions which seemed to discriminate between the more effective teachers and the less effective teachers was generated by a team of six people with various backgrounds. Then, twenty raters were trained to compare the protocols of the classrooms of the more effective teachers with the protocols of the classrooms of the less effective teachers. Working without knowledge of the effectiveness designations for the teachers, the raters made paired comparisons for each content area at each grade level: second grade mathematics, second grade reading, fifth grade mathematics, and fifth grade reading.

In this chapter, inter-rater agreement in comparing paired protocols from the Known Sample is discussed first. Then the results are presented in detail.

Inter-Rater Agreement

Inter-rater agreement in comparing paired protocols from the Known Sample was established by pairing two raters in sixteen instances to compare paired protocols for a more effective teacher with those for a less effective teacher--four instances each for second grade mathematics, second grade reading, fifth grade mathematics, and fifth grade reading. (Table 8 illustrates the four rater pairings for second grade reading.) Thus, there were 16 opportunities for raters to agree or disagree that a given dimension was more evident in the protocols either for the more effective teacher or for the less effective teacher. Raters were paired within teams, and no two raters were paired with each other more than once. Pairings were selected at random. Table 9 presents the results.

First appears the identification number and label for each dimension. These are listed in descending order of inter-rater agreement, with the highest percentage of rating agreement first. Second is listed the corresponding percent of rater agreement for each dimension. Thus, for Dimension 2, Accepting, there was an agreement of 1.0 among the 16 pairs of raters. i.e., each of the 16 pairs of raters selected the protocols for the same teacher as exhibiting more of that dimension, thus agreeing on that dimension for that pair of teachers. In contrast, on a dimension like Dimension 39, Oneness, the 16 pairs of raters agreed at only .63, i.e., of the 16 paired comparisons, 10 of the rater pairs selected the protocols for the same teacher in their protocol pair as exhibiting more of the dimension, while 6 of the rater pairs disagreed about which teacher exhibited more of the dimension.

TABLE 9

Inter-Rater Agreement for 61 Dimensions of Special Study A Across the Known Sample Teachers

Dimension	% Rater Agreement
2. accepting (T)	1.00
20. equity (T)	.94
30. individualizing (T)	.94
44. peer teaching (S)	.94
5. awareness of developmental levels (T)	.88
16. distrust (T)	.88
19. engagement (S)	.88
25. flexibility (T)	.88
32. knowledge of subject (T)	.88
37. monitoring learning (T)	.88
42. optimism (T)	.88
47. politeness (T)	.88
1. abruptness (T)	.81
4. attending (T)	.81
7. belittling (T)	.81
8. competing (T)	.81
12. cooperation (S)	.81
14. defiance (S)	.81
24. filling time (T)	.81
46. policing (T)	.81
48. praising (T)	.81
55. sponteneity (T)	.81
59. time fixedness (T)	.81
61. warmth (T)	.81
3. adult involvement (C)	.75
9. complimenting (control) (T)	.75
11. conviviality (C)	.75
15. democracy (T)	.75
18. encouraging (T)	.75
22. excluding (T)	.75
23. expectation (T)	.75
27. harrassing (T)	.75
28. ignoring (T)	.75
31. job satisfaction (T)	.75
51. rushing (T)	.75
52 sarcasm (T)	.75
57. structuring (T)	.75
58. teacher made materials (T)	.75
60. waiting (T)	.75
6. being liked (T)	.69
10. consistency of message (control) (T)	.69
17. drilling (T)	.69
21. ethnicity (T)	.69
33. manipulation (S)	.69
34. mobility (S)	.69
35. mobility (S)	.69
43. pacing (T)	.69
50. recognition seeking (T)	.69
54. signaling (control) (T)	.69
56. stereotyping (T)	.69
13. defending (T)	.63
26. gendering (T)	.63
36. modeling/imitation (S)	.63
38. moralizing (T)	.63
39. oneness (T)	.63
41. open questioning (T)	.63
53. shaming (T)	.63
40. openness (T)	.56
45. personalizing (T)	.56
29. illogical statements (T)	.50
49. promoting self-sufficiency (T)	.44

It is interesting to note that of the nine dimensions on which it was difficult to reach inter-rater agreement during training for the paired set of training protocols, (see Chapter II), only two (Dimension 3, Adult Involvement, and Dimension 44, Peer Teaching) achieved an inter-rater agreement across the Known Sample of .7 or better. These two dimensions also are relatively easy to observe and record in comparison to the other seven. Table 10 reports inter-rater agreement on these nine dimensions. Two more dimensions, (Dimension 10, Consistency of Message, and Dimension 21, Ethnicity), were borderline at .69. The five others, however, reached an inter-rater agreement of .63 or less and thus apparently proved difficult for raters when comparing the protocols of teachers from the Known Sample.

TABLE 10

Inter-Rater Agreement for 9 Dimensions
Which Proved Difficult During Training

Dimension	% Rater Agreement
3. adult involvement (C)	.75
10. consistency of message (control) (T)	.69
21. ethnicity (T)	.69
26. gendering (T)	.63
39. oneness (T)	.63
41. open questioning (T)	.63
44. peer teaching (S)	.94
45. personalizing (T)	.56
49. promoting self-sufficiency (T)	.44

Chance level agreement among raters would be .5. Inter-rater agreement on 50 of the dimensions was .69 or higher, considered sufficiently above the chance level to warrant further analysis of these dimensions. The other 11 dimensions, on which inter-rater agreement was .63 or below, also have been included in subsequent analysis, but the results should be interpreted with caution.

Findings

The results of the rater comparisons of paired protocols for more and less effective teachers--36 comparisons for each of four subject x grade level groupings--were submitted to statistical analysis. For this purpose, the data base was perceived as a series of binomial variables since, in each instance of comparison for a single dimension, a rater was instructed to determine which set of protocols--either those for the more effective teacher or those for the less effective teacher--appeared to contain more evidence that the teacher exhibited more of that dimension or evidence that it was more present in his classroom. Thus for comparison, only two possible events could occur, and a given teacher had to exhibit more or less of a given dimension. The findings of this analysis are reported here in the following ways:

1. Generally;
2. Generically, or those dimensions for which a p of less than .05 was reported for each of the four sets of data analyzed--second grade mathematics, second grade reading, fifth grade mathematics, fifth grade reading;
3. Grade level specific, or those dimensions which reported a p of less than .05 for both content areas (mathematics and reading) at a given grade level (second or fifth);
4. Subject specific, or those dimensions which reported a p of less than .05 for a content area (mathematics or reading) in both grades (second and fifth);
5. Grade/subject specific, or those dimensions which reported

TABLE 11

61 Dimensions from Special Study A: Rating Results on Paired Comparisons

Dimension	SECOND GRADE MATHEMATICS			SECOND GRADE READING			FIFTH GRADE MATHEMATICS			FIFTH GRADE READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(-) 1. abruptness (T)	13	23	.0475	27	9	.0013	11	25	.0099	10	26	.0035	.81
(+) 2. accepting (T)	26	10	.0035	25	11	.0099	24	12	.0228	26	10	.0035	1.00
(+) 3. adult involvement (C)	28	8	.0003	23	13	.0475	23	13	.0475	23	13	.0475	.75
(+) 4. attending (T)	26	10	.0035	30	6	.00003	25	11	.0099	25	11	.0099	.81
(+) 5. awareness of developmental levels (T)	23	13	.0475	29	7	.0002	22	14	.0918	26	10	.0035	.88
(-) 6. being liked (T)	11	25	.0099	15	21	.1587	9	27	.0013	14	22	.0918	.69
(-) 7. belittling (T)	11	25	.0099	12	24	.0228	12	24	.0228	12	24	.0228	.81
(±) 8. competing (T)	19	17	.7414	12	24	.0456	14	22	.1836	14	22	.1836	.81
(∓) 9. complementing (control) (T)	20	16	.2514	26	10	.0035	23	13	.0475	19	17	.3707	.75
(+) 10. consistency of message (control) (T)	26	10	.0035	24	12	.0228	28	8	.0003	27	9	.0013	.69
(+) 11. conviviality (C)	25	11	.0035	30	6	.00003	23	13	.0475	27	9	.0013	.75
(+) 12. cooperation (S)	26	10	.0035	29	7	.0002	24	12	.0228	27	9	.0013	.81
(+) 13. defending (T)	19	17	.3707	21	15	.1587	17	19	.3707	23	13	.0475	.63
(-) 14. defiance (S)	11	25	.0099	4	32	.000003	13	23	.0475	7	29	.0002	.81
(+) 15. democracy (T)	25	11	.0099	23	13	.0475	22	14	.0918	26	10	.0035	.75
(-) 16. distrust (T)	10	26	.0035	12	24	.0228	14	22	.0918	17	19	.3707	.88
(±) 17. drilling (T)	14	22	.1836	13	23	.0950	19	17	.7414	12	24	.0456	.69
(∓) 18. encouraging (T)	28	8	.0003	30	6	.00003	21	15	.1587	25	11	.0099	.75
(+) 19. engagement (S)	27	9	.0013	28	8	.0003	23	13	.0475	30	6	.00003	.88
(+) 20. equity (T)	23	13	.0475	27	9	.0013	22	14	.0918	26	10	.0035	.94
(+) 21. ethnicity (T)	22	14	.0918	26	10	.0035	18	18	.5000	25	11	.0099	.69
(-) 22. excluding (T)	11	25	.0099	16	20	.2514	13	23	.0475	13	23	.0475	.75
(-) 23. expectation (T)	11	25	.0099	13	23	.0475	14	22	.0918	14	22	.0918	.75
(-) 24. filling time (T)	11	25	.0099	9	27	.0013	10	26	.0035	9	27	.0013	.81
(+) 25. flexibility (T)	27	9	.0013	27	9	.0013	22	14	.0918	23	13	.0475	.88
(±) 26. gendering (T)	17	19	.7414	11	25	.0198	16	20	.5028	16	20	.5028	.63
(-) 27. harrassing (T)	12	24	.0228	8	28	.0003	14	22	.0918	10	26	.0035	.75
(-) 28. ignoring (T)	10	26	.0035	7	29	.0002	16	20	.2514	9	27	.0013	.75
(-) 29. illogical statements (T)	13	23	.0475	8	28	.0003	12	24	.0228	11	25	.0099	.50
(+) 30. individualizing (T)	26	10	.0035	28	8	.0003	20	16	.2514	23	13	.0475	.94
(+) 31. job satisfaction (T)	29	7	.0002	29	7	.0002	22	14	.0918	28	8	.0003	.75
(+) 32. knowledge of subject (T)	27	9	.0013	29	7	.0002	25	11	.0099	28	8	.0003	.88
(-) 33. manipulation (S)	17	19	.3707	6	30	.00003	9	27	.0013	8	28	.0003	.69
(+) 34. mobility (S)	27	9	.0013	27	9	.0013	22	14	.0918	21	15	.01587	.69
(+) 35. mobility (T)	26	10	.0035	28	8	.0003	19	17	.3707	17	19	.3707	.69
(+) 36. modeling/imitation (S)	22	14	.0918	23	13	.0475	19	17	.3707	21	15	.1587	.63
(+) 37. monitoring learning (T)	29	7	.0002	29	7	.0002	23	13	.0475	24	12	.0228	.88
(-) 38. moralizing (T)	7	29	.0002	8	28	.0003	20	16	.2514	21	15	.1587	.63
(-) 39. oneness (T)	11	25	.0099	12	24	.0228	12	24	.0228	11	25	.0099	.63
(+) 40. openness (T)	20	16	.2514	26	10	.0035	22	14	.0918	21	15	.1587	.56

* Number of times in 36 paired comparisons the more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 11 (continued)

Dimension	SECOND GRADE MATHEMATICS			SECOND GRADE READING			FIFTH GRADE MATHEMATICS			FIFTH GRADE READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(+) 41. open questioning (T)	24	12	.0456	27	9	.0026	26	10	.0070	19	17	.7414	.63
(+) 42. optimism (T)	28	8	.0003	29	7	.0002	23	13	.0475	27	9	.0013	.88
(+) 43. pacing (T)	27	9	.0013	26	10	.0035	23	13	.0475	25	11	.0099	.69
(+) 44. peer teaching (S)	26	10	.0035	19	17	.3707	18	18	.5000	24	12	.0228	.94
(+) 45. personalizing (T)	24	12	.0228	25	11	.0099	23	13	.0475	22	14	.0918	.56
(-) 46. policing (T)	7	29	.0002	9	27	.0013	14	22	.0918	14	22	.0918	.81
(+) 47. politeness (T)	23	13	.0475	26	10	.0035	25	11	.0099	21	15	.1587	.88
(+) 48. praising (T)	29	7	.0002	29	7	.0002	21	15	.1587	23	13	.0475	.81
(+) 49. promoting self-sufficiency (T)	25	11	.0099	30	6	.00003	23	13	.0475	24	12	.0228	.44
(-) 50. recognition seeking (T)	10	26	.0035	11	25	.0099	12	24	.0228	12	24	.0228	.69
(-) 51. rushing (T)	10	26	.0035	12	24	.0228	16	20	.2514	18	18	.5000	.75
(-) 52. sarcasm (T)	10	26	.0035	12	24	.0228	11	25	.0099	18	18	.5000	.75
(-) 53. shaming (T)	13	23	.0475	8	28	.0003	12	24	.0228	14	22	.0918	.63
(+) 54. signaling (control) (T)	17	19	.7414	15	21	.3174	8	28	.0006	8	28	.0006	.69
(+) 55. sponteneity (T)	26	10	.0035	28	8	.0003	25	11	.0099	23	13	.0475	.81
(-) 56. stereotyping (T)	16	20	.2514	11	25	.0099	14	22	.0918	16	20	.2514	.69
(+) 57. structuring (T)	24	12	.0228	28	8	.0003	26	10	.0035	25	11	.0099	.75
(+) 58. teacher made materials (T)	21	15	.1587	29	7	.0002	21	15	.1587	19	17	.3707	.75
(-) 59. time fixedness (T)	11	25	.0099	10	26	.0035	18	18	.5000	18	18	.5000	.81
(+) 60. waiting (T)	26	10	.0035	27	9	.0013	22	14	.0918	23	12	.0475	.75
(+) 61. warmth (T)	27	9	.0013	26	10	.0035	22	14	.0918	24	12	.0228	.81

* Number of times in 36 paired comparisons the more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

> a p of less than .05 for each content area at each grade level, i.e., second grade mathematics, second grade reading, fifth grade mathematics, fifth grade reading.

One important fact should be noted. For each of the four paired rater comparisons in each set of ratings (second grade mathematics, second grade reading, fifth grade mathematics, fifth grade reading), only one rater's comparison was used. This was randomly selected and figured into the data.

General Results

Results for all four sets of rated comparisons of the forty Known Sample teachers are reported in Table 11. Each dimension is listed by its label and identification number. The plus (+) and minus (-) signs preceding the dimensions indicate how they were perceived by the team that generated the dimensions. This team took care in generating the dimensions as positive--a dimension to be desired in a classroom; as neutral--a dimension which might or might not be desired in a classroom; or as negative--a dimension normally perceived not to be desired in a classroom. (These designations were not used for training raters, who were required to develop their own understanding of this aspect of each dimension during training.) For purposes of data analysis, the designations were treated as hypotheses. A plus (+) before a dimension in Table 11 means that it was expected to be evidenced more by the more effective teachers. A minus (-) means that the dimension was expected to be evidenced more by the less effective teachers. For the five dimensions that were perceived as neutral (numbers 8, 17, 26, 41, and 54), no hypotheses were formed about whether they would be expected to be associated more with more effective or less effective teachers. Thus, two-tailed tests were used to determine the probability of significant split among raters on the five dimensions perceived to be neutral. On all other dimensions, one-tailed tests were used.

The columns in Table 11 headed second grade mathematics, second grade reading, fifth grade mathematics, and fifth grade reading report the number of times out of each set of 36 paired comparisons the more effective and less effective teacher protocols were rated as evidencing more of a dimension, along with the associated p values. The probability of the distribution occuring as reported was estabished using the binomial test (Kerlinger, 1965, pp. 260-63), and the associated p value was established using Table I from Hays (Hays, 1963, pp. 672-73). The p values have been doubled for the five neutral dimensions (+ or -) for which no hypotheses were formed about their expected association with more or less effective teachers.

The last column of Table 11 reports inter-rater agreement for each dimension. As emphasized in the immediately preceding section on "Inter-Rater Agreement," the findings for the eleven dimensions with inter-rater agreement of .63 or below should be interpreted with caution. These eleven dimensions are numbers 13, 26, 29, 36, 38, 39, 40, 41, 45, 49, and 53.

Generic Results

Of the 61 Dimensions in Special Study A, 21 can be considered to be generic. These are reported in Table 12.

To be considered generic, a dimension had to achieve significance in all four of the grade/subject data sets--second grade mathematics, second grade reading, fifth grade mathematics, and fifth grade reading. Significance for this purpose was established at the level of a p value

TABLE 12

21 Generic Dimensions from Special Study A

Dimension	SECOND GRADE MATHEMATICS			SECOND GRADE READING			FIFTH GRADE MATHEMATICS			FIFTH GRADE READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(-) 1. abruptness (T)	13	23	.0475	9	27	.0013	11	25	.0099	10	26	.0035	.81
(+) 2. accepting (T)	26	10	.0035	25	11	.0099	24	12	.0228	26	10	.0035	1.0
(+) 3. adult involvement (C)	28	8	.0003	23	13	.0475	23	13	.0475	23	13	.0475	.75
(+) 4. attending (T)	26	10	.0035	30	6	.00003	25	11	.0099	25	11	.0099	.81
(-) 7. belittling (T)	11	25	.0099	12	24	.0228	12	24	.0228	12	24	.0228	.81
(+) 10. consistency of message (control) (T)	26	10	.0035	24	12	.0228	28	8	.0003	27	9	.0013	.69
(+) 11. conviviality (C)	25	11	.0099	30	6	.00003	23	13	.0475	27	9	.0013	.75
(+) 12. cooperation (S)	26	10	.0035	29	7	.0002	24	12	.0228	27	9	.0013	.81
(-) 14. defiance (S)	11	25	.0099	4	32	.000003	13	23	.0475	7	29	.0002	.81
(+) 19. engagement (S)	27	9	.0013	28	8	.0003	23	13	.0475	30	6	.00003	.88
(-) 24. filling time (T)	11	25	.0099	9	27	.0013	10	26	.0035	9	27	.0013	.81
(-) 29. illogical statements (T)	13	23	.0475	8	28	.0003	12	24	.0228	11	25	.0099	.5
(+) 32. knowledge of subject (T)	27	9	.0013	29	7	.0002	25	11	.0099	28	8	.0003	.88
(+) 37. monitoring learning (T)	29	7	.0002	29	7	.0002	23	13	.0475	24	12	.0228	.88
(-) 39. oneness (T)	11	25	.0099	12	24	.0228	12	24	.0228	11	25	.0099	.63
(+) 42. optimism (T)	28	8	.0003	29	7	.0002	23	13	.0475	27	9	.0013	.88
(+) 43. pacing (T)	27	9	.0013	26	10	.0035	23	13	.0475	25	11	.0099	.69
(+) 49. promoting self-sufficiency (T)	25	11	.0099	30	6	.00003	23	13	.0475	24	12	.0228	.44
(-) 50. recognition seeking (T)	10	26	.0035	11	25	.0099	12	24	.0228	12	24	.0228	.69
(+) 55. sponteneity (T)	26	10	.0035	28	8	.0003	25	11	.0099	23	13	.0475	.81
(+) 57. structuring (T)	24	12	.0228	28	8	.0003	26	10	.0035	25	11	.0099	.75

* Number of times in 36 paired comparisons the more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

of .0475 or less. These p values are reported along with percentages of inter-rater agreement.

Grade Level Specific Results

There are 25 additional dimensions which can be considered specific for the second grade level, and 3 for the fifth grade level. These are reported in Tables 13 and 14. These are dimensions which reported a p value of .0475 or less in both reading and mathematics at the given grade level. Both the p values and the percentages of inter-rater agreement are reported in Tables 13 and 14.

The dimensions reported as grade level specific in Tables 13 and 14 are in addition to the 21 generic dimensions reported in Table 12 as being generic across both grades. Thus, when looking for those dimensions which reported significant p values for both mathematics and reading, dimensions from Table 12 should be included with those from Tables 13 and 14. The total number of significant dimensions across both mathematics and reading is 46 at the second grade level and 24 at the fifth grade level.

Subject Specific Results

Besides those dimensions reported in Table 12 as being generic across both grade levels for both subjects, there are dimensions which reported significant p values of .0475 or less for a given subject--but not for the other--across both grade levels. Table 15 reports these dimensions for mathematics and Table 16 for reading with the associated p values and the corresponding inter-rater agreement for each dimension. There are 7 dimensions thusly reported for mathematics and 14 dimensions for reading. Again, to establish a true count of dimensions which reported significant

TABLE 13

25 Grade Level Specific Dimensions from Special Study A: Second Grade

Dimension	MATHEMATICS			READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(+) 5. awareness of developmental levels	23	13	.0475	29	7	.0002	.88
(+) 15. democracy	25	11	.0099	23	13	.0475	.75
(-) 16. distrust	10	26	.0035	12	24	.0228	.88
(+) 18. encouraging	28	8	.0003	30	6	.00003	.75
(+) 20. equity	23	13	.0475	27	9	.0013	.94
(-) 23. expectation	11	25	.0099	13	23	.0475	.75
(+) 25. flexibility	27	9	.0013	27	9	.0013	.88
(-) 27. harrassing	12	24	.0228	8	28	.0003	.75
(-) 28. ignoring	10	26	.0035	7	29	.0002	.75
(+) 30. individualizing	26	10	.0035	28	8	.0003	.94
(+) 31. job satisfaction	29	7	.0002	29	7	.0002	.75
(+) 34. mobility (S)	27	9	.0013	27	9	.0013	.69
(+) 35. mobility (T)	26	10	.0035	28	8	.0003	.69
(-) 38. moralizing	7	29	.0002	8	28	.0003	.63
(±) 41. open questioning	24	12	.0456	27	9	.0026	.63
(+) 45. personalizing	24	12	.0228	25	11	.0099	.56
(-) 46. policing	7	29	.0002	9	27	.0013	.81
(+) 47. politeness	23	13	.0475	26	10	.0002	.88
(+) 48. praising	29	7	.0002	29	7	.0002	.81
(-) 51. rushing	10	26	.0035	12	24	.0228	.75
(-) 52. sarcasm	10	26	.0035	12	24	.0228	.75
(-) 53. shaming	13	23	.0475	8	28	.0003	.63
(-) 59. time fixedness	11	25	.0099	10	26	.0035	.81
(+) 60. waiting	26	10	.0035	27	9	.0013	.75
(+) 61. warmth	27	9	.0013	26	10	.0035	.81

*Number of times in 36 paired comparisons more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 14

3 Grade Level Specific Dimensions from Special Study A: Fifth Grade

Dimension	MATHEMATICS			READING			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(-) 22. excluding	13	23	.0475	13	23	.0475	.75
(-) 33. manipulation	9	27	.0013	9	27	.0013	.69
(±) 54. signaling (control)	8	28	.0006	8	28	.0006	.69

* Number of times in 36 paired comparisons more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 15

7 Mathematics Dimensions for Second and Fifth Grades from Special Study A

Dimension	SECOND GRADE			FIFTH GRADE			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(-) 6. being liked	11	25	.0099	9	27	.0013	.69
(-) 22. excluding	11	25	.0099	13	23	.0475	.75
(+) 41. open questioning	24	12	.0456	26	10	.0070	.63
(+) 45. personalizing	24	12	.0228	23	13	.0475	.56
(+) 47. politeness	23	13	.0475	25	11	.0099	.88
(-) 52. sarcasm	10	26	.0035	11	25	.0099	.75
(-) 53. shaming	13	23	.0475	12	24	.0228	.63

* Number of times in 36 paired comparisons more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 16

14 Reading Dimensions for Second and Fifth Grades
from Special Study A

Dimension	SECOND GRADE			FIFTH GRADE			% Rater Agreement
	More Effective Teachers*	Less Effective Teachers*	p	More Effective Teachers*	Less Effective Teachers*	p	
(+) 5. awareness of developmental level	29	7	.0002	26	10	.0035	.87
(+) 15. democracy	23	13	.0475	26	10	.0035	.75
(+) 18. encouraging	30	6	.00003	25	11	.0099	.75
(+) 20. equity	27	9	.0013	26	10	.0036	.94
(+) 21. ethnicity	26	10	.0035	25	11	.0099	.69
(+) 25. flexibility	27	9	.0013	23	13	.0475	.88
(-) 27. harrassing	8	28	.0003	10	26	.0035	.75
(-) 28. ignoring	7	29	.0002	9	27	.0013	.75
(+) 30. individualizing	28	8	.0003	23	13	.0475	.94
(+) 31. job satisfaction	29	7	.0002	28	8	.0003	.75
(-) 33. manipulation	6	30	.00003	8	28	.0003	.69
(+) 48. praising	29	7	.0002	23	13	.0475	.81
(+) 60. waiting	27	9	.0013	23	13	.0475	.75
(+) 61. warmth	26	10	.0035	24	12	.0228	.81

* Number of times in 36 paired comparisons more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

p values for mathematics and reading across both grade levels, the dimension reported as generic in Table 11 must be included. Thus, mathematics dimensions total 28 and reading dimensions total 34.

Grade x Subject Results

Some dimensions reported significant p values of .0475 or less for only a specific subject at a specific grade level. These are reported in Table 17 for second grade mathematics (2 dimensions); Table 18 for second grade reading (7 dimensions); Table 19 for fifth grade mathematics (1 dimension); and Table 20 for fifth grade reading (3 dimensions). Each table reports the associated p values and inter-rater agreement for each dimension.

TABLE 17

2 Second Grade Mathematics Dimensions from Special Study A

Dimension	More Effective Teachers*	Less Effective Teachers*	p	% Rater Agreement
(+) 36. mobility (T)	26	10	.0035	.69
(+) 44. peer teaching	26	10	.0035	.94

TABLE 18

7 Second Grade Reading Dimensions from Special Study A

Dimension	More Effective Teachers*	Less Effective Teachers*	p	% Rater Agreement
(±) 8. competing	12	24	.0228	.81
(+) 9. complimenting (control)	26	10	.0035	.75
(±) 26. gendering	11	25	.0198	.63
(+) 36. modeling/imitation	23	13	.0475	.63
(+) 40. openness	26	10	.0035	.56
(-) 56. stereotyping	11	25	.0099	.69
(+) 58. teacher made materials	29	7	.0002	.75

* Number of times in 36 paired comparisons more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

TABLE 19

1 Fifth Grade Mathematics Dimensions from Special Study A

Dimension	More Effective Teachers*	Less Effective Teachers*	p	% Rater Agreement
(+) 9. complimenting (control)	23	13	.0475	.75

TABLE 20

3 Fifth Grade Reading Dimensions from Special Study A

Dimension	More Effective Teachers*	Less Effective Teachers*	p	% Rater Agreement
(+) 13. defending	23	13	.0475	.63
(±) 17. drilling	12	24	.0456	.69
(∓) 44. peer teaching	24	12	.0228	.94

* Number of times in 36 paired comparisons more effective/less effective teacher's protocol was rated as evidencing more of the dimension.

CHAPTER FOUR

DISCUSSION OF FINDINGS

Ethnographic data collection techniques were used in Special Study A because of their promise for describing the richness of classroom life. Sensitive, trained observers spent one full week in each of the classrooms of the Beginning Teacher Evaluation Study Known Sample teachers, recording data by notetaking and developing protocols for the teaching of both mathematics and reading. In addition, other observations and interview information were developed into informal protocols. These sets of qualitative data then were submitted to analysis, and it is those findings that appear in Chapter III of this report.

In order to discuss the findings of Special Study A, it is helpful to organize the 61 Dimensions so that they help to describe the Known Sample of teachers and their classrooms. The schema presented in Table 21 organizes the dimensions into four categories.

Classroom Climate, Category A, includes eleven dimensions, of which eight are positive, one neutral, and two negative. These dimensions as a group are most descriptive of the atmosphere of a classroom. As such, they include teacher and student dimensions as well as classroom dimensions.

Teacher Instructional Moves, Category B, contains twenty-one dimensions. Thirteen of these are positive, two are neutral, and six are negative. As a group, these dimensions are descriptive of moves made by a teacher in the act of instruction, particularly instruction as it relates to subject matter rather than instruction for behavior control or for socializing.

Teacher Behavior Control Moves, Category C, includes fifteen dimensions, four of which are positive, two of which are neutral, and nine of which are negative. These dimensions as a group are descriptive of those moves made by

TABLE 21

61 Special Study A Dimensions Organized into Four Categories

Category A: Classroom Climate

(+) 3. adult involvement (C)
(±) 8. competing (T)
(+) 11. conviviality (C)
(+) 12. cooperation (S)
(-) 14. defiance (S)
(+) 15. democracy (T)
(+) 19. engagement (S)
(-) 33. manipulation (S)
(+) 34. mobility (S)
(+) 44. peer teaching (S)
(+) 49. promoting self-sufficiency (T)

Category B: Teacher Instructional Moves

(-) 1. abruptness (T)
(+) 4. attending (T)
(±) 17. drilling (T)
(+) 18. encouraging (T)
(+) 20. equity (T)
(+) 21. ethnicity (T)
(-) 24. filling time (T)
(-) 29. illogical statements (T)
(+) 30. individualizing (T)
(+) 35. mobility (T)
(+) 37. monitoring learning (T)
(±) 41. open questioning (T)
(+) 43. pacing (T)
(+) 48. praising (T)
(-) 51. rushing (T)
(+) 55. sponteneity (T)
(-) 56. stereotyping (T)
(+) 57. structuring (T)
(+) 58. teacher made materials (T)
(-) 59. time fixedness (T)
(+) 60. waiting (T)

Category C: Teacher Behavior Control Moves

(-) 7. belittling (T)
(+) 9. complementing (control) (T)
(+) 10. consistency of message (control) (T)
(-) 22. excluding (T)
(±) 26. gendering (T)
(-) 27. harrassing (T)
(-) 28. ignoring (T)
(+) 36. modeling/imitation (S)
(-) 38. moralizing (T)
(-) 39. oneness (T)
(+) 45. personalizing (T)
(-) 46. policing (T)
(-) 52. sarcasm
(-) 53. shaming
(±) 54. signaling (control) (T)

Category D: Teacher Characteristics

(+) 2. accepting (T)
(+) 5. awareness of developmental level (T)
(-) 6. being liked (T)
(+) 13. defending (T)
(+) 16. distrust (T)
(-) 23. expectation (T)
(+) 25. flexibility (T)
(+) 31. job satisfaction (T)
(+) 32. knowledge of subject (T)
(+) 40. openness (T)
(+) 42. optimism (T)
(+) 47. politeness (T)
(-) 50. recognition seeking (T)
(+) 61. warmth (T)

a teacher to control the behavior of students and thus can be interpreted as disciplinary actions or moves designed to shape the behavior of students to fit the teacher's perceived model of appropriate social behavior.

Teacher Characteristics, Category D, includes fourteen dimensions, nine positive and five negative. These dimensions are perceived as being descriptive of a teacher's philosophy, attitude, and behavior in the classroom with students.

By organizing the 61 Dimensions into these four categories it becomes possible to describe aspects of classroom life. The core of that descriptive set of terms is Classroom Climate, Category A, for it is these dimensions which most clearly describe the quality with which the participants are interacting. Each of the other three categories can then be individually interfaced with Category A to describe the degree and quality of interrelationships.

This descriptive model will be used here to discuss the findings of Special Study A. The discussion that follows will focus on the findings in three ways:

(1) Generically, or across both the second and fifth grades (and including both mathematics and reading);

(2) By subject area (mathematics and reading);

(3) By grade level, both individually and in comparison.

Generic Dimensions

As reported in Chapter III, twenty-one dimensions were found to be generic--that is, significant in both the second and the fifth grades for both mathematics and reading. Table 22 organizes these generic dimensions into the four category system for the purpose of discussion.

TABLE 22

21 Generic Dimensions from Special Study A Organized into Four Categories

Category A: Classroom Climate

(+) 3. adult involvement (C)
(+) 11. conviviality (C)
(+) 12. cooperation (S)
(-) 14. defiance (S)
(+) 19. engagement (S)
(+) 49. promoting self-sufficiency (T)

Category B: Teacher Instructional Moves

(-) 1. abruptness (T)
(+) 4. attending (T)
(-) 24. filling time (T)
(-) 29. illogical statements (T)
(+) 37. monitoring learning (T)
(+) 43. pacing (T)
(+) 55. sponteneity (T)
(+) 57. structuring (T)

Category C: Teacher Behavior Control Moves

(-) 7. belittling (T)
(+) 10. consistency of message (control) (T)
(-) 39. oneness (T)

Category D: Teacher Characteristics

(+) 2. accepting (T)
(+) 32. knowledge of subject (T)
(+) 42. optimism (T)
(-) 50. recognition seeking (T)

Classroom Climate

Those generic dimensions which distinguish between the more effective teacher and the less effective teacher describe a family-like climate in the classroom. Jencks (1972) has suggested that "we ought to describe schools in a language appropriate to a family rather than to a factory." In doing so, he points out, we will think in terms of the character of school life and its immediate effects on the participants, whether they find schools "dull, depressing, even terrifying places" or "lively, comfortable, and reassuring." The quality of interaction in such a family-like classroom climate is reflected in the three dimensions which most dramatically sorted the two groups of teachers: *conviviality* (11), *engagement* (19), and *defiance* (14).

A spirit of conviviality, or an esprit de corps, is central to family-like interactions, and it is most apparent in the classrooms of the more effective teachers. Conviviality implies mutual respect, mutual affection, friendship, and warmth in the interactions between teacher and students. Thus, there is also present in the classroom of the more effective teacher a high degree of engagement on the part of students. They are apparently busy, involved in what they are doing, and achieving enough satisfaction and reward to continue at their tasks and do so willingly. There is very little defiance exhibited by students in the more effective teachers' classrooms, in contrast with classrooms of the less effective teachers where student defiance was found to be more prevalent.

In fact, in the classrooms of the more effective teachers, *cooperation* (12) is the primary mode of interaction. Students willingly help each other with instructional tasks and assume some responsibility for housekeeping tasks. There is present a willingness to participate cooperatively in order to achieve mutually agree upon goals. This latter quality in students is encouraged by the teacher by *promoting self-sufficiency* (49), both for housekeeping chores as well as for learning tasks. Students in the classrooms of the more effective teachers seem to be more self-sufficient and more able to work alone, and this is encouraged by the teacher.

Finally, in the more effective teachers' classrooms there is more *adult involvement* (3). Teachers seem more willing to "give up" some of the teaching to other adults, and all instruction need not emanate only from themselves. There is thus a shared responsibility of adults to instruct, and students have an opportunity to interact with more than one adult.

All six of the Classroom Climate dimensions found in the more effective teachers' classrooms, then, are descriptive (in the case of defiance, by its absence) of a warm, positive home environment, one that is embued with those qualities ascribed to it by lay and professional literature describing optimal home environments for children's growth. Students and teacher share a common, convivial spirit and cooperate with each other. Students are engaged, working and playing industriously and with purpose and are therefore not defiant of adults. Teachers share instructional tasks with other adults and encourage students to assume increasing responsibility for their behavior and for working at instructional tasks.

Central to the maintenance of family life is the support system, usually found in the role of the parent, real or surrogate. The other three categories of generic dimensions are descriptive of such a surrogate role as parent in a family. Here, however, they refer to the teacher and are descriptive of the support provided by the teacher for this family-like quality inherent in the classrooms of the more effective teachers.

Teacher Instructional Moves

In the classrooms of the more effective teachers, four generic dimensions impact dramatically on the instructional support system: *attending* (2), *monitoring learning* (37), *structuring* (57), and *sponteneity* (55). The case can easily be made, of course, that all four are equally descriptive of similar parental activities when successfully instructing young children.

The more effective teachers more often displayed active listening to what their students had to say than did the less effective teachers. They were attentive and took the time necessary to attend to their students' thoughts, recitation, expression. Actions such as head nodding, responses of reinforcement such as "Uh-huh" and "Yes," smiling or otherwise responding facially to what a student was saying can be motivational, encouraging students to participate more actively.

At the same time, the more effective teachers monitored the learning of their students, and these two activities (listening and monitoring learning) often were combined. Teachers often monitored while listening to a student recite or relate an anecdote. Monitoring of learning was not always as obvious as checking test papers and correcting students' work in order to adjust intstruction; it was most often subtle and occurred as teachers moved about the room, observed what their students were doing, and talked with them, offering suggestions and encouragement.

Structuring was more often apparent among the more effective teachers and can help to account for the engagement of their students. Because of the teachers' continued monitoring of their students' learning and the appropriate adjustment of instruction, their students more often appeared to be engaged in instructional activites. The more effective teachers were more careful to struture lessons so that their students were less confused and more confident of what they were doing than students in the classrooms of less effective teachers. Such structuring events as reviewing, revealing lesson objectives, summarizing, and outline lesson parts on the blackboard were more apparent with more effective teachers. However, they did not appear to be bound to lesson plans and could change more easily when the situation presented itself.

This sponteneity allowed the more effective teachers to capitalize on unexpected opportunites to learn, whether or not these were tied to the prescribed instruction for the day. Their students were encouraged to express themselves freely, and this expression often led to serrendipitous learning opportunities. The more effective teachers more often took advantage of such moments and integrated them into the instruction for the day.

Three other dimensions inter-relate to help further define the instructional moves of the more effective teachers. As a group, they tended to exhibit more sensitivity to *pacing* (43) their instruction, matching it to the ability of their students to "keep up." There was less evidence of *abruptness* (1) and more evidence that more effective teachers tended toward smoothness in their instruction. Abruptness can be characterized by the unanticipated "switching" from lesson to lesson or back and forth from instruction to behavior management so that students appear to be confused or surprised. Such behavior was more apparent in the classrooms of the less effective teachers, while smoothness of instructional moves combined with pacing of instruction to provide more apparent engagement on the part of students of the more effective teachers. Too, there was less evidence that the more effective teachers were *filling time* (24) with "busy work", a commonly observed phenomenon in the classrooms of the less effective teachers.

Finally, in the classrooms of the more effective teachers, there were fewer instances of the teacher's making *illogical statements* (29). Such task defeating statements, whose consequence would be ridiculous if carried out, are not in keeping with the instructional pattern observed in the more effective teachers' classrooms.

Teacher Behavior Control Moves

The low incidence of illogical statements by more effective teachers corresponds to the degree of the *consistency of messages* (10) sent by these teachers when dealing with discipline. Their students understood that what their teacher said and did was consistent, and that when threats were made they were carried out. It is this dominant consistency which is also seemingly characteristic of parent-child relationships in the home, and thus it is easy to compare the two and apply the same principle to support the family-like climate of the classroom. A child builds his emotional security on being able to depend upon adult actions and reactions; being punished severely one time and being ignored another time for the same behavioral infraction can result in insecurity, anxiety, and withdrawal. Students in the classrooms of the more effective teachers could depend more on the consistency of their teachers' behavioral control messages, and this is evident in their degree of engagement, their willingness to cooperate, and the general conviviality of the classroom.

The case can also be offered that one who is consistent in dealing with the deviant behavior of students is quite likely to be consistent in other ways as well. This can be seen here in the case of such instructional moves as attending (4), monitoring learning (37), sponteneity (55) and structuring (57). A teacher who can be depended upon to listen will probably encourage more verbalization, recitation, and sharing of ideas, feelings, attitudes by students. Similarly, there is little threat from a teacher who exhibits consistency in monitoring the learning of his students and appropriately adjusts instruction to fit their needs, thus better ensuring their participation and engagement. The spontaneous teacher will not laugh at or be upset by correlative sponteneity on the part of his students, but can be depended on to weigh each situation carefully and to respond sensitively. Structuring instruction can also be perceived as an orderly, consistent manner in which a teacher "leads" his students through the maze of school learning. It is quite likely, then, that these five dimensions--particularly because they are descriptive of the more effective teacher--interdependently work to explain the consistency in dealing both with discipline and with instruction which is more apparent in the classrooms of the more effective teachers.

Two additional dimensions for controlling behavior occurred with less frequency among the more effective teachers (*belittling* [7], and *oneness* [39]), and thus were more prominent in the classrooms of the less effective teachers. More effective teachers did not rely on belittling or berating their students in public in order to make them conform, nor did they handle discipline problems by punishing the whole class, thus treating the students as a "one." Instead, there appears to be more evidence that more effective teachers tended to promote self-sufficiency and to encourage cooperation, and thus had less defiance on the part of students. It is this apparent respect for the individual--whether child or adult, and shared by all participants--that permeates Categories A, B, and C of the generic dimensions for the more effective teachers. This is also highly relative to the characteristics of these teachers.

Teacher Characteristics

Generic dimensions which are descriptive of the characteristics of the more effective teachers lend additional support to the home-like atmosphere of the classroom. They were found to be more *accepting* (2), more *optimistic* (42), had a greater *knowledge of subject* (32), and exhibited less *recognition seeking* (50) behavior.

More effective teachers were accepting of their students' behavior and more willing to explore with them their own feelings; they were more aware of their students' needs and more willing to adjust their own behavior to accommodate these; and they provided more constructive reactions to those attitudes and feelings expressed by their students. The evident result of such supporting behavior can be seen in the conviviality of the classroom, the cooperation of students--both among themselves and with the teacher--and the engagement of students in instructional activities. This supporting interaction also can be seen in parent-child instructional interactions.

Optimism was expressed as positive, pleasant attitudes or feelings more often by more effective teachers. This was a general attitude, but optimism also was specifically directed toward the instructional capability of students and toward encouraging students. As with accepting, optimism on the part of teachers was reflected in their students' engagement in instructional activities and in the general conviviality of the classroom.

There was more evidence available that more effective teachers possessed a greater knowledge of subject matter. This is particularly important as a generic dimension in that it applies across both the second and fifth grades and for mathematics as well as reading. A greater knowledge of the subject being taught can be directly related to teacher instructional moves such as structuring, monitoring learning, and sponteneity. Teachers who know the subject being taught are apparently more aware of how to structure lessons and can alter their lessons as they monitor students' learning and adjust instruction accordingly. Too, they seem to be more able to spontaneously capitalize on the moment and to integrate into their lessons the unexpected, serrendipitous event. Naturally, this is also reflected in the engagement of students with instructional activity, in their cooperation with each other and with their teacher, with the isolated instances of or absence of defiance, and with the convivial atmosphere of the classroom.

These three dimensions (accepting, optimism, knowledge of subject) help to explain the lesser degree to which recognition seeking appeared among more effective teachers, who apparently did not need to be the center of attention at the sacrifice of instruction.

As the remainder of this discussion of the findings from Special Study A is presented, it is important to keep in mind that the generic dimensions discussed above apply to all other discussions. That is to say that in addition to those dimensions which appear to be significant across a specific subject area or across a specific grade level, the generic dimensions presented here also are present and a part of other organizing analyses for both second and fifth grades for both mathematics and reading.

Comparison of Dimensions by Subject Area: Mathematics and Reading

There are fourteen dimensions which appear to be significant for the teaching of reading, and seven for the teaching of mathematics. These are dimensions which reported a p value of .0475 or less across both grade levels for either the teaching of mathematics or the teaching of reading. It is important to note, however, that a dimension which appears here may also be discussed in the next section of this chapter ("Grade Level Dimensions") if it also was reported as significant for both subject areas within a grade level. Further, because they are generic and appeared across both grade levels for both subject areas, the dimensions discussed above in the preceding section should automatically be included here.

The dimensions for mathematics are listed in Table 23, those for reading in Table 24. Both sets of dimensions have been organized into the four categories presented at the beginning of this chapter. Here they will be discussed and compared in an attempt to determine why a dimension may have been reported as significant for one subject area but not for the other.

Before discussing the dimensions themselves, it is important to understand the characteristics of the teaching of both mathematics and reading and how they differ between grades two and five. In the second grade, the teaching of mathematics and reading looks much alike. That is to say, teachers tend to group their classes and to work with smaller groups of students; within groups, students will usually have similar ability, and abilities will differ among groups. The primary objectives for both subject areas center first around the decoding skills (for numerals as well as for letters) and the regularization of student responses in relation to these. Thus, teachers spend a great portion of their time in developing the skills

TABLE 23

7 Mathematics Dimensions for Second and Fifth Grades Organized into Four Categories

Category A: Classroom Climate

(None)

Category B: Teacher Instructional Moves

(±) 41. open questioning (T)

Category C: Teacher Behavior Control Moves

(-) 22. excluding (T)
(+) 45. personalizing (T)
(-) 52. sarcasm (T)
(-) 53. shaming (T)

Category D: Teacher Characteristics

(-) 6. being liked (T)
(+) 47. politeness (T)

TABLE 24

14 Reading Dimensions for Second and Fifth Grades Organized into Four Categories

Category A: Classroom Climate

(+) 15. democracy (T)
(-) 33. manipulation (S)

Category B: Teacher Instructional Moves

(+) 18. encouraging (T)
(+) 20. equity (T)
(+) 21. ethnicity (T)
(+) 30. individualizing (T)
(+) 48. praising (T)
(+) 60. waiting (T)

Category C: Teacher Behavior Control Moves

(-) 27. harrassing (T)
(-) 28. ignoring (T)

Category D: Teacher Characteristics

(+) 5. awareness of developmental levels (T)
(+) 25. flexibility (T)
(+) 31. job satisfaction (T)
(+) 61. warmth (T)

of computation and reading decoding.

By the fifth grade, students are assumed to have basic skills for both subject areas, and the emphasis switches to utilization of these skills and extending them into problem solving situations. Thus, mathematics instruction might include extending measurement into the properties of volume and mass, for example, or into the theory of probability. Reading might center around the use of reading for various purposes, e.g., gathering information, recreation, solving problems, etc. Grouping practices vary at grade five, and the teaching of mathematics and reading is dissimilar. While within a given class a teacher may still be emphasizing basic skills or remedial instruction for some students, the majority of students will be working individually at their seats, and interaction with their teacher will occur most frequently at times when papers are being corrected by the entire class or when the teacher is monitoring the progress of students.

These distinctions are important to bear in mind during the discussion which follows.

Classroom Climate

For mathematics, there were no dimensions reported with a p value of .0475 or less. For reading, however, two dimensions discriminate between the more effective teachers and the less effective teachers--*democracy* (15) and *manipulation* (33)--and these prove interesting when added to the generic dimensions for this category.

For reading, more effective teachers at both grade levels appeared more frequently to involve their students in the decision making process in the classroom; to allow them a greater degree of freedom in moving about the classroom during instruction; to seek their input in developing class behavioral standards. Consequently, in the classrooms of the more effective teachers, there appeared to be far less student manipulation of the teacher, i.e., students' getting the desired response from the teacher on demand, than those in the less effective teachers. These two dimensions would appear to be interdependent in that it may appear axiomatic that if a teacher allows student participation in decision making and setting class standards, there is probably little need for students to revert to manipulating teachers to get their way. Alongside the generic dimensions for this category of classroom climate, however, they extend the description of the family-like atmosphere in the classrooms of the more effective teachers.

In comparison between the two subject areas, there is perhaps more opportunity inherent in the teaching of reading to allow for democracy and student manipulation of the teacher. The nature of the instructional materials alone would indicate this; there are far more alternatives available in reading via the selection of stories to read than there are in mathematics where activity centers more often around providing more examples of the same problem in order to regularize a mathematics concept. Thus, the moves available to a teacher are far more limited in mathematics than in reading, especially as they relate to these two dimensions.

Teacher Instructional Moves

There is one instructional move which discriminates between more effective and less effective teachers at both grade levels for mathematics; there are six which discriminate for reading.

Open questioning (41) was exhibited more frequently in the classrooms of more effective teachers when teaching mathematics--a fact that provides for interesting speculation. Mathematics is more usually an area in which the regularization of mathematical computation would call for questioning of a closed rather than an open nature (closed questions being those calling for fact recall, while open questions extend the thinking of students). It is more likely that while no doubt a large number of closed questions were asked in the classrooms of both groups of teachers, the asking of open questions in addition was observable only in the classrooms of the more effective teachers. As an instructional move that seeks to stimulate the student to interpret rather than to pull a single answer from his memory, it is interesting to find more open questioning in the teaching of mathematics than in the teaching of reading. Again, however, it is important to point out that in the absence of discriminating between the two groups of teachers, it must be assumed that a dimension was present to a similar degree in the classrooms of both groups of teachers. Thus, because reading provides for more open-endedness in the sorts of questions that teachers ask, such questions were apparently asked by most teachers in the Known Sample when teaching reading, but only by the more effective teachers when teaching mathematics.

This conclusion would appear to lead to two questions for further study, either in a re-analysis of the protocols or by further observation of teachers: (1) What are the sort of questions of an open nature asked by more effective teachers when teaching mathematics? On what objectives are they focusing? and (2) For those same objectives and in similar situations, what sorts of questions are asked by the less effective teachers?

Six other dimensions discriminate between the two groups of teachers for the teaching of reading: *encouraging* (18), *equity* (20), *ethnicity* (21), *individualizing* (30), *praising* (48), and *waiting* (60). Of these, all but ethnicity also discriminated for the second grade for the teaching of mathematics, while none of them discriminated for mathematics at the fifth grade level. A comparison by grade level for those five dimensions is thus reserved for the next section of this report, and this discussion will be limited primarily to comparing the two subject areas from the fifth grade perspective.

The one dimension which did not discriminate across both subject areas for the second grade, however, is ethnicity, and thus it deserves attention here from the perspective of both grades. The nature of the teaching of reading, it would seem, would allow more opportunity for a teacher to draw upon the cultural contributions of various groups of people. Only rarely would this be the case in the content of mathematics materials. However, to the degree that such opportunities presented themselves, more effective teachers more frequently capitalized on them.

A second dimension which is materials-bound is individualizing. That is to say, if materials are so constructed, there would seem to be more opportunity for teachers to individualize their instruction. Individualizing discriminated for both subjects at the second grade level, but only for reading at the fifth grade level. One explanation might be that mathematics materials at the fifth grade level are more individualized than are reading materials, and therefore both groups of teachers using these materials would appear to individualize for mathematics. In reading, however, individualizing was present to a greater degree in the classrooms of the more effective teachers. A natural step for purposes of further analysis would be to examine carefully the materials for both reading and mathematics at the fifth grade level in order to determine the degree to which individualizing as a dimension is dependent on the instructional materials themselves. Such a conclusion would then help to substantiate individualizing as an appropriate dimension for purposes of discriminating between the two groups of teachers for the teaching of reading.

Waiting, as a dimension that discriminated between the two groups of teachers, might also be tied to the nature of the instructional materials. As with open questioning, the frequency of opportunities to indulge in prolonged discussion or to invite alternative answers seems to be greater for the teaching of reading than for the teaching of mathematics. The nature of material being read by students would seem to lend itself to more frequent discussion, and therefore it might provide a teacher with more opportunities to do so. However, if this is indeed the case, only those teachers who were more effective seemed to take advantage of waiting as an instructional mode, for it occurred more frequently in their classrooms.

The remaining three dimensions in this category--encouraging, equity, and praising--immediately come to mind as further extensions of those dimensions which are descriptive of the classroom as family-like. As pointed out earlier, all three dimensions discriminated between the two groups of teachers at the second grade level for both reading and mathematics. However, they discriminated at the fifth grade level for reading only. Before a conclusion can be drawn, questions must be raised, then, as to the degree of occurrence of these three dimensions in the teaching of mathematics. Two possibilities are apparent: (1) either these three dimensions occurred infrequently and to the same degree for both groups of teachers; or (2) both groups of teachers used all three instructional moves frequently and with approximately the same frequency. A natural question to raise here, of course, is that, if such instructional moves occurred for mathematics with a high frequency for both the more effective teachers and the less effective teachers, then why did only the more effective teachers use these instructional moves during the teaching of reading? Further analysis of the protocols should reveal a comparison of encouraging, equity, and praising when used by more effective teachers in both the teaching of mathematics and the teaching of reading; such a comparison, in turn, can help to explain how the more effective teachers were able to extend these instructional moves from the teaching of mathematics into the teaching of reading.

Teacher Behavior Control Moves

For this category, there are four dimensions which discriminate for the teaching of mathematics and two for reading. It is again interesting to note that all of these but *excluding* (22) discriminated for the second grade in both subject areas, while excluding was the only one in this group of dimensions which discriminated for both the teaching of mathematics and the teaching of reading at the fifth grade level.

Personalizing (45) is the only positive dimension in this group which discriminated between the teachers for either the teaching of mathematics or the teaching of reading. Here, it discriminated for both subjects at the second grade level, but only for the teaching of mathematics at the fifth grade level. Speculation would take one immediately to the nature of the subject as well as to the nature of the materials.

In the second grade, both subjects are generally taught in small groups, and the opportunities for teachers to interact with their students and to use their names during such interactions is greater.

At the fifth grade level, however, the two subject areas differ. By now, reading instruction is more often based on a developmental model, with students involved in the process of reading rather than in its mechanics. Opportunities for interaction would thus be fewer. The teaching of mathematics, however, continues to present more opportunities for teachers to introduce new material, thus providing them with proportionately more opportunities for using their students' names--during class discussion, correcting mathematics papers, questioning in presenting new material, etc. Thus, in order to determine more precisely why personalizing discriminated only for the teaching of mathematics at the fifth grade level, information about the frequency of such occurrences during the teaching of reading, as well, would need to be accumulated. Secondary analysis of the protocols would yield such information.

The remaining three dimensions which discriminated for mathematics, as well as the two which discriminated for reading, are all negative in nature. This means that they discriminated between the two groups of teachers primarily because they were more frequently observed in the classrooms of the less effective teachers. Thus, *excluding* (22), *sarcasm* (52), and *shaming* (53) were used more frequently by less effective teachers to control their students' behavior when teaching mathematics. It is important to reiterate that excluding discriminated for both subjects at the fifth grade level but only for mathematics at the second grade level, while sarcasm and shaming discriminated for both subjects at the second grade level but only for mathematics at the fifth grade level. *Harrassing* (27), and *ignoring* (28) discriminated for reading instruction at the fifth grade and for both subjects at the second grade.

An important factor to keep in mind when considering negative dimensions is that if they discriminate, as they did in these instances, it is because they occurred with greater frequency in the classrooms of the less effective teachers. Thus, for mathematics, the less effective teachers of the Known Sample more often handled discipline problems by banishment, by the use of sarcasm, and by shaming; when teaching reading the less effective teachers more often harrassed their students or ignored them.

The opportunities for excluding a student by banishment from the instructional activity to some other place--a corner, the cloak room, out of the room--probably might arise more frequently during mathematics lessons since they more often are taught to large groups than are reading lessons. Because reading lessons are individual or small group in nature, it is easy to speculate that a teacher might be less subject to the frustration that leads to this ultimate weapon--banishment.

Sarcasm and shaming, too, because they are reactive in nature, i.e., they are both examples of a person's reaction to another's expression or behavior, might possibly occur in the setting of mathematics instruction since there is usually a greater frequency of large group question-and-answer, paper correcting, and lessons. A student simply has more opportunity in such a setting to make a mistake, which would provide an automatic opportunity for a sarcastic comment ("Oh, really? Can you *really* multiply 5 by 13 and get 18?") or for shaming ("You know better than that! Class, tell her the answer.")

Similarly, constant harrassment of a student--to get his work done, to do better, to do it "right"--or simply ignoring a student when he is trying to get the teacher's attention might be more likely to occur during reading lessons when students are most often supposed to be working silently and individually.

For all of these dimensions, careful secondary analysis of the protocols would contribute two kinds of information to help further explain them. First, it would be helpful to collect specific instances for each dimension as they occurred in the classrooms of the less effective teachers so that the exact nature of the event could be better understood. Second, descriptive data for the more effective teachers about how they handled similar situations would provide the opportunity to compare these strategies.

Teacher Characterisitics

For the teaching of mathematics, there are two dimensions which discriminated between the more effective and the less effective teachers, while for reading there are four discriminating dimensions. Of these, only one--*being liked* (6)--discriminated for both grades in mathematics; the others were dimensions which discriminated for the second grade in both subject areas and will therefore be discussed here from the subject specific perspective, particularly as it relates to the fifth grade.

Being liked (6) is the only negative dimension in either subject group, and it discriminated for mathematics at both grade levels. Thus, being liked discriminates on the basis that ingratiating behavior was more often observed among less effective teachers than among more effective teachers. The fact that it discriminated only for mathematics might be attributed to the number of opportunities that would allow for such a dimension during mathematics lessons as compared to reading lessons. To be observed at all, this dimension implies that teachers will publicly sacrifice instruction in order to seek approval and reinforcement from students. Further, while it might be dangerous to generalize that teachers are less prepared to teach mathematics, many teachers expressed to ethnographers a sense of less security in teaching mathematics then in teaching reading, particularly at grade five. Such insecurity could provide insights into why this dimension was observed more often among the less effective teachers.

The remaining dimensions are positive and discriminated the two groups of teachers by virtue of a high frequency of occurrence in the classrooms of the more effective teachers. *Politeness* (47) discriminated for mathematics at both grade levels and also for reading at the second grade level. Again, mathematics lessons--particularly at the fifth grade level--because they are more often whole group experiences, offered the teacher more opportunities to say "Thank you" and "Please" to students. This also was true for personalizing (45) in Category C, and the two can be assumed to exist to a similar degree in a single event, i.e., a teacher who is polite will probably also use a student's first name.

Flexibility (25) and *warmth* (61), which discriminated for both subjects at the second grade level, would most likely be expected to occur during reading instruction at the fifth grade level because of the nature of the instructional situation. There are more opportunities for flexibility when a given subject area allows for more choices, and this is more true of reading when a student can at the very least select from among a group of stories than for mathematics. The focus on the techniques of reading for a variety of purposes also allows for some variety, and quite possibly builds a better situation in which a teacher may be flexible. A similar argument can be made for exhibiting warmth: there are simply more opportunities during reading instruction because, at the minimal level, the variety of content in fifth grade readers and books allows for more chances that teacher and student will share a common concern and thus interact warmly.

The *job satisfaction* (31) dimension which occurs here only for reading at the fifth grade--but for both subjects at the second grade--might reflect the statement made earlier concerning the security of teaching mathematics vs. reading. If one feels more secure about one's ability to teach a subject, he is more likely to feel better about student outcomes. More effective teachers seemed to be enjoying more the teaching of reading; on the other hand, since this dimension did not also discriminate for mathematics at the fifth grade level, the question must be raised as to the implication of one of two possibilities: (1) Did the two groups enjoy teaching mathematics equally well? or (2) Did neither group enjoy teaching mathematics?

Finally, *awareness of development levels* (5) discriminated for both subjects at the second grade level, but only for reading at the fifth grade level. One causal factor might be the nature of mathematics materials. In recent years, there has been an abundance of mathematics instructional programs based on the diagnosis and prescriptive model. Built into such programs are pre-tests so that students can be diagnosed into instruction at a discreet level of their own competence. Also, most programs are individualized and many are self-instructional, so that they are in a sense "teacher proof." Thus, for mathematics, all teachers could appear to exhibit developmental awareness of students solely because of the manner in which materials are constructed. In reading, however, such materials exist only for remedial instruction, and hence only the more effective teachers exhibited such behavior to a high degree of frequency.

This last point gives rise to an important consideration. The degree to which instructional materials bear on student outcomes without actual instructional input on the part of the teacher needs to be carefully examined, both for mathematics and for reading. Ethnographers observed the teaching of these subjects when teachers were using regularly provided materials. They recorded the bibliographical information and the interaction during the use of the instructional materials. A secondary analysis of the protocols for this specific information, plus a careful examination of the instructional materials used in California schools for the teaching of mathematics and reading, should help to establish the parameters within which teachers had opportunities to be observed operationalizing those dimensions recorded here and why they might have been observed for one and not the other subject.

Grade Level Dimensions

Tables 25 and 26 list the dimensions that reported a p value of .0475 or less for both subject areas at either the second or fifth grade. The fifth grade dimensions in Table 26 have already been discussed. Of the eight dimensions for the second grade not previously discussed, six are negative: *distrust* (16), *expectation* (23), *moralizing* (38), *policing* (46), *rushing* (51), and *time fixedness* (59).

Distrust and expectation are both Category D dimensions, or Teacher Characteristics. That they discriminated would indicate that in the classrooms of the less effective teachers, there were more instances of teacher distrust of students, more instances of the teachers' not believing what students told them. Also, less effective teachers more often rationalized the poor work or lack of ability of their students on the basis of socio-economic or ethnic factors.

Moralizing and policing, both Category C dimensions, indicate that less effective teachers also utilized these behavior management moves to a greater degree than did the more effective teachers.

TABLE 25

25 Second Grade Dimensions from Special Study A Organized into Four Categories

Category A: Classroom Climate

(+) 15. democracy (T)*
(+) 34. mobility (S)

Category B: Teacher Instructional Moves

(+) 18. encouraging (T)*
(+) 20. equity (T)*
(+) 30. individualizing (T)*
(+) 35. mobility (T)
(±) 41. open questioning (T)*
(+) 48. praising (T)*
(-) 51. rushing (T)
(-) 59. time fixedness (T)
(+) 60. waiting (T)*

Category C: Teacher Behavior Control Moves

(-) 27. harrassing (T)*
(-) 28. ignoring (T)*
(-) 38. moralizing (T)
(+) 45. personalizing (T)*
(-) 46. policing (T)
(_) 52. sarcasm (T)*
(-) 53. shaming (T)*

Category D: Teacher Characteristics

(+) 5. awareness of developmental levels (T)*
(-) 16. distrust (T)
(-) 23. expectation (T)
(+) 25. flexibility (T)*
(+) 31. job satisfaction (T)*
(+) 47. politeness (T)*
(+) 61. warmth (T)*

* Also appears on Tables 23 or 24

TABLE 26

3 Fifth Grade Dimensions from Special Study A Organized into Four Categories

Category A: Classroom Climate

(-) 33. manipulation (S)*

Category B: Teacher Instructional Moves

(None)

Category C: Teacher Behavior Control Moves

(-) 22. excluding (T)*
(±) 54. signaling (control) (T)

Category D: Teacher Characteristics

(None)

* Also appears on Tables 23 or 24

Finally, rushing and time fixedness would seem to correlate since both are indicative of being bound to time rather than being task oriented. Both dimensions discriminated in favor of the more effective teachers.

The remaining two dimensions, *mobility (S)* (34) and *mobility (T)* (35) were observed more often in the classrooms of the more effective teachers. They would seem to indicate that the degree of mobility allotted students is highly correlated with the mobility of the teacher.

Tables 25 and 26 illustrate dramatically the differences in grade level dimensions which discriminate between the more effective and less effective teachers for both subjects at the second and fifth grade levels. For the second grade, there are twenty-five dimensions that discriminate for both mathematics and reading, while for the fifth grade there are only three discriminating dimensions. Further, of the twenty-five dimensions listed in Table 25 as discriminating for the second grade all but eight also appeared on Table 23 or 24; thus, seventeen of the twenty-five second grade dimensions also discriminated at the fifth grade for one of the two subject areas. Of the three fifth grade dimensions listed in Table 26, two also discriminated for second grade in either mathematics or reading.

This fact gives rise to the obvious conclusion that when one goes beyond the generic dimensions listed in Table 22, effective teachers at the second and fifth grades look very different when they are compared as teachers of mathematics and teachers of reading. The data supporting this conclusion are presented in Table 27.

In Table 27, the subject specific dimensions listed in Tables 22 and 23 (a total of 21 in all) have been recounted to eliminate overlap with the grade level specific dimensions listed in Tables 25 and 26. Thus for the second grade, there is a total of 50 discriminating dimensions--21 which

TABLE 27

Discriminating Dimensions by Grade Level

Kinds of Dimensions	Number at Second Grade	Number at Fifth Grade
Generic	21	21
Subject Specific*	4	19
Grade Level Specific	25	3
TOTAL	50	43

* Data in this row are for the number of subject specific dimensions at each grade level (i.e., dimensions that discriminate for one subject at both grade levels) that are not counted in the row below as discriminating for both subjects at that grade level.

discriminate generically, 4 which discriminate by subject, and 25 which discriminate for both subjects. For the fifth grade, there is a total of 43 discriminating dimensions--21 which discriminate generically, 19 which discriminate by subject, and 3 which discriminate for both subjects.

Beyond the 21 generic dimensions, then, more effective teachers at the second grade were discriminated from less effective teachers most dramatically on the basis of dimensions that looked across the teaching of both mathematics and reading--dimensions that were specific to the grade level. However, at the fifth grade, more effective teachers were discriminated from less effective teachers on the basis of subject specific dimensions--dimensions found to discriminate in the teaching of one subject at both grade levels. In light of the nature of both the subjects and the varying approaches to their teaching in the second and fifth grades, this is perhaps not as surprising as it appears at first glance.

As subjects, mathematics and reading are very different. One involves the development of computational skills for the purpose of mathematical problem solving. The other involves the development of decoding and comprehension skills in order to assimilate information through the process of reading. At the second grade, the focus of instruction is on assimilation of the basic skills--sound-symbol relationships in reading, moving to the comprehension of words; number-numeral relationships in mathematics, moving to their use in computation and quantification. By the fifth grade, however, it is assumed that students have mastered these basic skills, at least to a degree that they can begin using them. Thus, the skills of decoding and comprehension are extended to their use in the process of reading for a variety of purposes, e.g., information assimilation, recreation, problem solving, etc., while computational skills are used to solve problems and to extend students into higher mathematics and logic.

It therefore is not too surprising to discover a difference in mathematics and reading instruction between the second and fifth grades. At the second grade, teachers apparently teach mathematics approximately the same way in which they teach reading. That is to say, those dimensions which discriminated between the more effective and the less effective teacher at the second grade did so to the same degree for both mathematics and reading, with the exception of four dimensions which are apparently subject specific: ethnicity (21) and manipulation (33), which discriminated for reading, and being liked (6), and excluding (22), which discriminated for mathematics. At the fifth grade, however, teachers apparently teach mathematics very differently from the way they teach reading. Thus, those dimensions which discriminated more effective teachers from less effective teachers at the fifth grade for mathematics are different from those that discriminated for reading.

In making this observation, some caution perhaps is in order.

First, it is important that instructional materials for both mathematics and reading at both grade levels be investigated to determine the extent to which they are "teacher free." Recent curriculum development in these two critical subject-skill areas has resulted in materials based on the diagnostic-prescriptive model. Many materials are individualized and self-programmed, with an emphasis placed on teaching students to monitor their own progress and check in with correction booklets which tell them where to go next. Such systems have been developed purposely to be "teacher proof," i.e., as systematized units of instruction with directions and procedures so explicit that all teachers need do is read the instruction aloud. Indeed, they are encouraged and, in many instances, required to do this and nothing more. Thus before significant conclusions can be drawn here, it seems appropriate to examine materials to determine to what extent they allow a teacher the opportunity either to exhibit the dimensions generated in this study or to develop alternative strategies.

Second, the fact that a dimension did not discriminate can mean one of several things. It can mean, first, that the dimension occurred so infrequently in the classrooms of both groups of teachers that it simply did not discriminate. Second, it can mean that the dimension was observed to the same degree of frequency in the classrooms of both groups of teachers. Or third, if the dimension discriminated in one subject area but not in the other, it can mean that it may be subject-specific or that the nature of the instructional materials caused it to occur or did not provide the opportunity for it to occur. To draw conclusions in these instances without further investigation would seem to be frivolous, and to try to substantiate that the absence of discrimination for a given dimension therefore is indicative of less effective teaching is dangerous.

Finally, it must be cautioned that the evidence provided here to discriminate between the two groups of teachers means what it says and nothing more: it means that a given dimension was observed to occur with a higher frequency in the protocols of the classrooms of one of the groups of teachers.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

The focus of Special Study A was on the use of research methodology drawn from sociology and anthropology in order to identify teacher, student and instructional characteristics which are indicative of effective teaching of reading and mathematics at the second and fifth grades. These in turn could be recommended for further study in Phase III-B of the Beginning Teacher Evaluation Study (BTES) for the California Commission for Teacher Preparation and Licensing.

Ethnographers were trained during a three-week training session at the Far West Laboratory, and spent one full week in each of the forty classrooms of the Known Sample, composed of ten more effective and ten less effective teachers, at both the second and fifth grades. They recorded data by observation, notetaking, and dictation, and these data were transcribed into protocols. Data were then submitted to analysis, first utilizing a dimension generating team which identified 61 Dimensions that discriminated between the classrooms of the more effective and less effective teachers, and second, utilizing twenty raters who compared the protocols of more effective and less effective teachers. The results of that data analysis appear as Chapters Three and Four of this report.

In order to place the findings and their discussion in perspective, this chapter shall deal first with suggestions of a precautionary nature when viewing the findings. Then, five major conclusions are presented along with recommendations and implications. These five major conclusions are:

(a) that the 61 Dimensions generated by Special Study A are worthy of further study during Phase III-B of the Beginning Teacher Evaluation Study, and that this can best be accomplished in a variety of configurations;

(2) that the dimensions of Special Study A describe the classrooms of more effective teachers as family-like in quality and feelings, and that this has important implications both for selecting and training teachers;

(3) that teachers at the second and fifth grade levels teach reading and mathematics in very different ways, and that this has implications for the training of teachers as well as for future research in teaching;

(4) that the methodology derived from sociology and anthropology and used in Special Study A is promising for future research in teaching, particularly in identifying those classrooms where more effective teaching seems to be occuring; and

(5) that as rich sources of important, qualitative data, the protocols developed for Special Study A are worthy of further study and analysis.

Suggestions for Interpreting the Findings

When dealing with the findings of Special Study A, there are several factors which should be considered in order to place the findings in proper perspective.

First, it should be recognized that the selection of the Known Sample of more effective and less effective teachers was based on adjusted learning outcomes of Experimental Teaching Units (ETUs). Such outcomes are wholly cognitive in nature. These findings, produced as a result of studying the Known Sample of teachers, are mostly affective in nature. As such, they serve to explain some of the ways in which the more effective teachers of this sample discriminated from the less effective teachers, and here are being recommended for further study in the Beginning Teacher Evaluation Study, Phase III-B. They should thus be interpreted both as exploratory in nature, rather than definitive, and within the framework of the definition of effective teaching utilized for selecting the sample.

Second, the 61 Dimensions generated by the study should be viewed from both the perspectives of how they discriminated between the more and less effective teachers as well as how they established commonalities. Thus, while the object of data analysis was to determine which dimensions indeed discriminated, it should be remembered that when a dimension did not discriminate between the more and less effective teachers, it was present for both in varying degrees. Because of the manner in which data is reported in Chapters Three and Four of this report, this aspect of the data might be easily overlooked and therefore this needs to be reinforced.

Third, the sample of teachers included only those who were determined to be more or less effective and thus represents only the extremes. These data are thus descriptive of the two opposite ends of such a continuum, but they do little to describe those teachers who, on the basis of the teaching of the ETUs, fell in the middle of the continuum.

Finally, the establishment of 21 Generic Dimensions in this study might tend to overshadow those remaining dimensions which could help to explain specifically the effective teaching of reading and mathematics at the second and fifth grades. Thus, in studying the results of this study, it is as important to attend to such subject specific or grade level specific findings as well as to the generic.

Five Conclusions and Recommendations

The intent of Special Study A was to identify for consideration in Phase III-B of the Beginning Teacher Evaluation Study those characteristics which prove to be promising and worthy of further study. The conclusions and recommendations which follow deal with this and other promising aspects of the study.

1. The 61 Dimensions

That this study has provided both discriminating and common characteristics which might prove valuable for further investigation is presented in Chapters Three and Four of this report. The 61 Dimensions sorted into those dimensions which discriminated between the more and less effective teachers in the following ways:

(a) those which are generic and which can be used for studying further the effective teaching of reading and mathematics at both the second and fifth grade (a total of 21 dimensions);

(b) those which are useful for studying the effective teaching of reading and mathematics at the second grade (25 dimensions in addition to the 21 generic dimensions);

(c) those which are useful for studying the effective teaching of reading and mathematics at the fifth grade (3 dimensions in addition to the 21 generic dimensions);

(d) those which are useful for studying the effective teaching of mathematics at the second and fifth grades (7 dimensions in addition to the 21 generic dimensions);

(e) those which are useful for studying the effective teaching of reading at the second and fifth grades (14 dimensions in addition to the 21 generic dimensions);

(f) those which are useful for studying the effective teaching of either reading or mathematics at either the second or fifth grades (2 second grade mathematics dimensions, 7 second grade reading dimensions, 1 fifth grade mathematics dimension, and 3 fifth grade reading dimensions).

In addition, it must be remembered that, if a dimension did not discriminate between the more and less effective teachers, it was therefore present in the classrooms of both to more or less the same degree.

It is recommended that, for Phase III-B of the BTES, the 61 Dimensions be studied further to verify their worth as indicators of effective teaching of reading and/or mathematics at the second and/or fifth grades. In addition, it is suggested that there may be merit in studying also those dimensions which appear to be present to more or less the same degree in the classrooms of both the more and less effective teachers.

2. The Family-Like Quality of Effective Teachers' Classrooms

The dimensions which were generated from the protocols of Special

Study A describe the classrooms of the more effective teachers as family-like in quality and feeling. In Chapter Four, the 61 Dimensions were categorized into four general groups: classroom climate, teacher instructional moves, teacher behavior control moves, and teacher characteristics. In serving to describe the classrooms of the more effective teachers, each category could also be perceived as being descriptive of those familial interactions in the home which have been attributed traditionally to the successful rearing of children.

In making such an observation, it is not the intent of this report to suggest that there exists a single family life model. Certainly, we recognize that there is a diversity of standards as to what constitutes desired behavior on the part of parents and children, as well as a diversity of objectives as to what ought to be accomplished, and that these will vary across families within a single ethnic group as well as across cultures. What is intended here, however, is to establish that the classrooms of the more effective teachers of the Known Sample can be described in ways that are similar to those qualities of effective familial interaction described in sociological and anthropological literature.

As such, the classrooms of the more effective teachers reflected a spirit of conviviality, implying mutual respect, affection, and friendship between students and between students and teacher. Cooperation seemed the primary mode of interaction, and students appeared to be highly engaged in learning.

In the surrogate parental role, the more effective teachers provided strong support to the maintenance of this family-like system. They attended when their students were expressing themselves, and they monitored their students' learning progress and adjusted instruction accordingly. They structured learning, and they were also highly responsive and spontaneous. In terms of behavior control, the more effective teachers were consistent in the messages they gave, so students could rely on consistent rewards or punishments for their own behavior.

The more effective teachers were found to be more accepting of their students' behavior and feelings. They were also more optimistic and exhibited a greater knowledge of subject matter.

It is this family-like atmosphere in the classrooms of the more effective teachers which has implications both for the selection of teachers into preservice teacher training programs as well as for the inservice education for practicing teachers. In his work, Jencks (1972) suggests that the "factory" model underlying the structure of schools probably "ought to be abandoned."

> Instead of evaluating schools in terms of long-term effects on their alumni, which appear to be relatively uniform, we think it wiser to evaluate schools in terms of their immediate effects on teachers and students, which appear much more variable. Some schools are dull, depressing, even terrifying places, while others are lively, comfortable, and reassuring. If we think of school life as an end in itself rather than a means to some other end, such differences are enormously important. Eliminating these differences would not do much to make adults more equal, but it would do a great deal to make the quality of children's (and teachers') lives more equal. Since children are in school for a fifth of their lives, this would be a significant accomplishment.
>
> Looking at schooling as an end in itself rather than a means to some other end suggests that we ought to describe schools in a language appropriate to a family rather than to a factory. (Jencks, 1972, p. 256)

If we are to make use of the findings of Special Study A in light of what Jencks suggests here, perhaps we need to look at the training of teachers in a different light.

In this vein, the following recommendations are made:

(a) that teacher training institutions examine their selection process in order to take into account those human characteristics and skills which predict maximal success in operationalizing a family-like classroom atmosphere;

(b) that consideration be given to incorporate into inservice education programs for practicing teachers both the findings from this study and the development of training strategies to implement them where possible;

(c) that the forty protocols developed for this study be made available for purposes of teacher training, both pre- and inservice.

Selection for pre-service teacher training programs. Current hiring practices of school districts are indicative of what we have known for a while. Teachers who now hold the majority of the jobs were hired in the early and mid-fifties when the post-World War II baby "boom" suddenly increased school enrollment. Thus, it is expected that teaching positions will remain filled until such time as those teachers retire. In the meantime, however, attrition will account for the need to hire increasing numbers of teachers. It would thus seem appropriate that teacher training institutions attend to the matter of encouraging the very best possible candidates to enter their training programs.

What is not intended by this recommendation is that institutions exclude possible trainees from their programs. What is suggested instead is that, when recruiting and selecting potential trainees, consideration be given to these human qualities which have been identified in this study that predict success in establishing a family-like classroom atmosphere. In so doing, it is important to note that, while the 21 Generic Dimensions from this study describe both second and fifth grade effective teachers, additional dimensions are applicable at only one grade level. This would indicate that the family-like interaction changes to some degree from one grade level to another as children grow and mature, but that some dimensions described in this study apply across age levels.

Relating these findings to practicing teachers. As with other pieces of research on teaching, the findings of this study lend potential import to the current practices of teachers, particularly at the second and fifth grades and for the teaching of reading and mathematics. It is important that teachers understand the characteristics of the family-like classroom atmosphere identified for effective teachers in this study, and that ways be developed to implement them where requested.

It is not the intent here to suggest enforcement of such classroom atmosphere, for this would seem to be impossible. However, when a teacher requests assistance in developing such an atmosphere, such assistance should be available.

Use of the protocols for teacher training. One resource that comes to mind immediately is the protocols bank developed for this study, and the effect they had on both the dimension generating team and the raters utilized during data analysis.

When read either individually or as a comparison of a more and a less effective teacher, the protocols provide rich, valuable experiences for teachers and students of teaching. The ongoing classroom life emerges from the reading of protocols in such a way as to trigger reflections on one's own experiences. This process can lead to valuable insights and, if structured, to important discussion, to questions, and to the identification of teaching strategies that appear to work.

Because they contain such, the protocols ought not to be merely laid aside or thought of in the context of only raw data. With minimum effort, they can be developed and utilized for purposes of training teachers.

3. Reading and Mathematics Instruction

From the findings of this study, it is quickly apparent that teachers at the second and fifth grades teach reading and mathematics in very different ways. This has implications both for the training of teachers at these grades as well as for further research on the teaching of reading and mathematics.

In the second grade, the teaching of reading and mathematics looks much alike. The more effective teachers tend to group students according to similar ability and to teach students in their respective groups. This was observed to be generally true both for reading and mathematics instruction. Because the primary objectives at the second grade center around regularization of decoding and computation skills, teachers naturally spend most of their time in developing these through drill and other response-centered activities.

Students are assumed to have developed these skills by grade five, so the instructional emphasis is on utilizing basic reading and mathematics skills and extending them into problem solving situations. Thus, grouping practices vary at grade five, and the teaching of reading and mathematics is dissimilar. Some students may be meeting with the teacher as a group for remedial instruction on skills, but there is a great deal more individualized instruction. Grouping in such a situation is usually for the purposes of exchanging ideas, and the basis of group selection may be social or according to the interests of students.

The discussion of the dissimilarity of reading and mathematics teaching between grades two and five which appears in Chapter Four reveals several areas in which such dissimilarities need to be communicated to both teacher trainers and researchers. It should be noted, however, that Dimension 32: knowledge of subject, discriminated the more and less effective teachers at both grade levels for both subjects. This would seem to indicate that knowledge of subject matter (i.e., underlying principles of both mathematics and the reading process) is an important indicator of effective teaching.

The following recommendations are therefore suggested by this study:

(a) That attention be paid during preservice training to instruction in the underlying principles of both mathematics and the reading process, and to operationalizing this knowledge as instructional strategies for the classroom. In passing, the point might be made that such information should be made available to practicing teachers, also.

(b) That those questions raised in Chapter Four be pursued, either during Phase III-B of the BTES, or in future research. These questions are:

    (1) What are the sort of questions of an open nature asked by more effective teachers when teaching mathematics? On what objectives are they focusing? For those same objectives and in similar situations, what sorts of questions are asked by the less effective teachers?

    (2) For all the Teacher Behavior Control dimensions, careful secondary analysis of the protocols would contribute two kinds of information to help further explain them. First, it would be helpful to collect specific instances for each dimension as they occurred in the classrooms of the less effective teachers so that the exact nature of the event could be better understood. Second, descriptive data for the more effective teachers about how they handled similar situations would provide the opportunity to compare these strategies.

    (3) The degree to which instructional materials bear on student outcomes without actual instructional input on the part of the teacher needs to be carefully examined, both for mathematics and reading. A secondary analysis of the protocols for this specific information, plus a careful examination of the instructional materials used in California schools for the teaching of mathematics and reading, should help to establish the parameters within which teachers had opportunities to be observed operationalizing those dimensions recorded here and why they might have been observed for one and not the other subject.

4. Ethnographic Methodology for Studying Teaching

A conscious effort to incorporate into Special Study A the research methodology used by social anthropologists has produced promising findings. Documented early in this report are some reasons why educational researchers should look beyond psychology for their technology, and this argument needs not be repeated here. The use of ethnographic techniques in this study, however, has given rise to questions which need to be approached.

Testing Special Study A hypotheses. The 61 Dimensions generated by this study can be perceived as hypotheses which may now be tested.

Earlier, the methodology of social anthropology was described as utilizing ethnography for purposes of generating hypotheses. The dimensions which discriminated between more and less effective teachers of the Known Sample were generated from raw descriptions of the classrooms of those teachers. Therefore it naturally follows that, treated as hypotheses, such dimensions also should be present in other classrooms, and on this basis these classrooms should reflect the same characteristics of those of the Known Sample.

It is therefore suggested that observational instrumentation can be developed utilizing the dimensions from this study and incorporated in Phase III-B of the Beginning Teacher Evaluation Study.

Testing ethnographic procedures. This study utilized a Known Sample, selected quantitatively through the use of Experimental Teaching Units (ETUs), which focused on cognitive student outcomes in order to identify more and less effective teachers. It would be interesting to investigate whether or not the dimensions generated by this study could identify a similar sample of teachers, and how closely the characteristics of that sample would compare with those of the more and less effective teachers of the BTES Known Sample.

Such a procedure could be operationalized in a way that, using ethnographers trained to identify instances of each of the 61 Special Study A Dimensions, a sample of more effective and less effective teachers could be identified. Then, by teaching the same (or similar) ETUs, teachers could be determined to be more or less effective, utilizing the

the two findings could establish the fruitfulness of ethnography as a way to identify effective teaching. At the very least, such an effort is worthy of consideration and is therefore recommended here for future research on teaching possibilities.

5. Further Analysis of the Protocols

As rich sources of qualitative information about teaching, the protocols developed as a bank of raw data for this study are worthy of further study. In this regard, the following recommendations are made.

Further study related to other BTES Phase III-A data. It is important to note that information was generated from Special Study A in a cumulative fashion. Thus, all ten more effective or ten less effective teachers were treated cumulatively. Other information exists for the Known Sample, however, and it is thus possible to study individual teachers from three perspectives: (a) in light of Special Study A data; (b) in light of ETU data; and (c) in terms of year-long student gains. Such correlational studies could reveal further, important information, and it is therefore recommended that this be a consideration for future BTES efforts.

Case studies. Each of the forty data sets contain descriptions of ongoing classroom life. These were analyzed in one way for purposes of this study. There remains the possibility, however, that much more can be gained from further anlaysis. Other analytic processes, for instance, might yield different, interesting results. It follows that, just as the introduction of data collection methodology from social anthropology resulted in rich qualitative information about teaching, the utilization of techniques of analysis from other social sciences might prove as productive. It is recommended that such be considered for future research on teaching.

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APPENDIX A

A Cross-Cultural Outline of Education

Jules Henry

APPENDIX A: A Cross-Cultural Outline of Education from Jules Henry, *Current Anthropology*, 4, July, 1960.

I. On what does the educational process focus?

1. Environment (other than human)
    1. Flora
    2. Fauna
    3. Climate
    4. Geographical features
    5. Anthropomorphized flora
    6. Anthropomorphized fauna
    7. Anthropomorphized or zoomorphized machines
    8. Anthropomorphized or zoomorphized natural pehnomena other than flora or fauna (winds, rivers, mountains, etc.)
    9. Space
    10. Time
    11. Motion
    12. Space-time-motion
    13. The world view of the culture
        1. Isolate-static
        2. Communicate-changing
            1. Engulfing
        3. Hostile or pacific
            1. Hostile
            2. Pacific
            3. Selectively hostile or pacific
        4. Geographical position of places studied
            1. Near: own town, state or province, village, tribe
            2. Near-distant: other states or provinces, nation in general; other villages or tribes
            3. Distant: other lands
        5. Temporal position
            1. Immediate
            2. Contemporary
            3. Near past
            4. Distant past
            5. Mythological past
    14. Clothing
    15. Food
    16. Transportation and communication

2a. Values

1. Good and bad: moral rules
2. Work, success, failure
3. Being on time
4. Culture
5. Proper dress
6. Strength, activity, power
7. Beating the game
8. Politeness, tact

Appendix A (continued)

9. Cooperation, helpfulness, togetherness
10. Patriotism
11. Cleanliness, orderliness
12. Thrift, saving, don't wast
13. Parents are good
14. Prettiness, beauty
15. Love
16. Mother, motherhood
17. Happiness
18. Conpetitiveness
19. Equality
20. Novelty, excitement
21. Pride
22. Knowledge as value
23. The "beautiful person"
24. Private property
25. Democracy
26. Family
27. Responsibility
28. Generosity, doing more than required, non-commercialism
29. The state
30. Deference
31. Enlightened self-interest
32. Independence, toughness
33. Physical intactness
34. Sense of emergency
35. Constancy
36. Solicitude for others, kindness
37. Composure under stress
38. Courage
39. Knowledge as means to an end
40. Compromise
41. Fun, relaxation
42. Friends, friendship, faithfulness
43. Fairness
44. Flattery, empty praise
45. Honor (integrity), personal autonomy
46. Self-restraint
47. Trying hard, don't give up
48. Fame, ambition
49. Honesty
50. Prestige
51. Niceness, likeableness
52. Respect for authority
53. Excitement
54. Gentleness, non-violence
55. Speed, alertness
56. Sacredness, etc., of parents
57. Flexibility
58. Modesty
59. Tolerance
60. Freedom
61. Peace

Appendix A (continued)

62. Progress
63. Wealth
64. U.S.A.
65. Loyalty
66. Money, greed, etc., are corrupting
67. Smartness, cleverness, thinking
68. Profit
69. Size

2b. Value conflict
3. Institutions
    1. Social
    2. Religion
    3. Economic system
4. Technology, machines
5. Reading, writing, and arithmetic
6. Social manipulation
    1. Recognition-seeking behavior
    2. Manipulation of others
    3. Manipulation of self
7. Responsibility
8. How to compete
9. How to take care of others
10. Use of the mind
    1. How to think
    2. Disjunction
        1. When to disjoin
        2. How to disjoin
        3. From what to disjoin
    3. Concentration
        1. Interest stimulation defining purpose; motivation
        2. Force
        3. Shutting out external stimuli
        4. Visualization
        5. Focused retention
    4. Preparation of the mind
    5. "Mental discipline"
11. Body parts or functions
    1. The voice
    2. The sphincters
    3. Care of the body (like getting enough rest)
    4. Posture
    5. How to relax
    6. The mouth
12. Art
13. History
14. Some other facts about which information is communicated
    1. About systems of rewards and punishments
    2. About what the culture promises its members
    3. About permitted and forbidden activities
    4. About how to get pleasure and avoid pain
    5. About whom to love and whom to hate
    6. How to handle frustration

Appendix A (continued)

21. By holding up adult ideals
22. Acting in undifferentiated unison
23. Physical force
24. By positive or negative assertion
25. Repetition
26. By specifically relating information to the child's own body,, bodily function, or experience
27a. Through ego-inflation
27b. Through ego-deflation
28. Through use of humor
29. By telling
30. By watching
31. By listening
32. Question and answer
    1. Teacher question, pupil answer
    2. Pupil questions, teacher answer
33. Holding up class, ethnic, national or religious ideals
34. By doing something on his own
35a. By repeating the child's error to him
35b. By repeating the child's correct answer
36. By accusing
37. By following a model
    1. Human
    2. Non-human
38. By comparison
39. By filling in a missing part
40. By associative naming (e.g., a book mentions gingham as a material, and teacher asks students if they can name other materials.)
41. By identifying an object (like going to the board and underlining "a noun" in a sentence)
42a. By group discussion
42b. By class discussion
43. Physical manipulation
    1. Bodily manipulation
    2. Bodily mutilation and other physical stresses
44. Rote memory
45. By working together with a student (as when teacher and student work together to make a battery, or as when teacher and student go over reference books together)
46. Through special exhibits
47. By having children read substantive materials (e.g., reading the chemistry lesson in the reader)
48. By putting the child on his mettle ("Now let's see how well you can read.")
49. Through group projects
50. By giving procedural instructions
51. By demanding proof
52. Through reports by students
53. By pairing (e.g., one child gives a word and calls on another child to give a sentence with the word; one child gives the state and another gives the capital)
54. By asking for volunteers
55. Through isolating the subject

Appendix A (continued)

III. Who educates?
   1. Males or females?
   2. Relatives or others?
   3. On which age group does the burden of education fall?
      1. Peers
         1. Boys
         2. Girls
      2. Older children
         1. Male
         2. Female
      3. Adolescents
         1. Male
         2. Female
      4. Adults
         1. Male or female
         2. Younger or older
         3. Married or unmarried
      5. Others
   4. Is education by "successful" people?
   5. What rewards accrue to the educator?
      1. Enhanced status
      2. Material rewards
      3. Emotional satisfactions
   6. Are there education specialists?
   7. Does the educator wear distinctive dress or other insignia?
   8. Is the educator of the same or of a different social group from that of the person being educated? (national, racial, class, etc.)

IV. How does the person being educated participate? (What is his attitude?)
   1. Accepting
   2. Rejecting, resistive
   3. Bored, indifferent
   4. Defiant
   5. Inattentive
   6. Social closeness of teacher and child
   7. Social distance of teacher and child
   8. Finds the process painful?
   9. Finds the process gratifying?
   10a. Competitively
   10b. Cooperatively
   11a. With inappropriate laughter
   11b. Ridiculing peers
   12. Laughter at humor of peers or teacher
   13. Over docility
   14. Eagerly
      1. Facial expression
      2. Hand-raising
      3. Talking out
      4. Heightened bodily tonus
   15. Through making independent decisions and suggestions
   16. Asks for clarification, direction, etc.

Appendix A (continued)

17. Through spontaneous contributions or other demonstrations not precisely within the context of the lesson
18. Through spontaneous contributions within the context of the lesson
19. Attentively
20. Spontaneously humorous
21. Spontaneously expressive
22. Approaches teacher physically
23. Mobile-free
24. Immobile-constricted
25. Through performing special assigned tasks
26a. Hostile to peers
26b. Protective of peers
27. Diversion to peers
28. Anxiously
29. Disjoined hand-raising
30. By whispering to teacher
31. Laughs at peers
32. Corrects teacher
33a. Disruptively
33b. Critically
34. By carping criticism
35. By praising work of peers
36. Dishonesty, cheating, lying, etc.
37. Attempts to maintain order
38. Guiltily
39. With sense of inadequacy
40. With sense of adequacy
41. By copying from peers
42. Attempts to control the class
43. No response
44. Uses teacher's last name
45. Uses teacher's first name
46. Calls out to teacher
47. Uses kinship term
48. By public performance

V. How does the educator participate? (What is his attitude?)

1. Eagerly
    1. Facial expression
    2. Bodily movement
    3. Tone of voice
    4. Heightened bodily tonus
2. Bored
3. Embarrassed
4a. Dominative
4b. Integrative
5. Insecure
6. Politely
7. Enjoys correct response
8. Resents incorrect response
9. Can't tell

Appendix A (continued)

10. Seeks physical contact with person being educated
11. Acceptance of blame
12. Putting decisions up to the children
13. Discouraging
14. Encouraging
15. Hostile, ridiculing, sarcastic, belittling
16. Relatively mobile
17. Relatively immobile
18. Personalizing
    1. Use of request sentence with name
    2. Use of name only
    3. Use of hand-name technique
    4. Use of equalizing, leveling term like "comrade"
19. Depersonalizing
    1. Use of class seating plan for recitation in succession
    2. Use of "next" or some such impersonal device
    3. Use of "you" instead of name
    4. Pointing, nodding, looking
20. Irritable
21. Accepts approach
22. Repels approach
23. Accepting of child's spontaneous expressions
24. Rejecting of child's spontaneous expressions
25. Humorous
26. Handles anxiety, hostility, discomfort, etc.
27. Acts and/or talks as if child's self-image is fragile
28. Acts and/or talks as if child's self-image is irrelevant
29. Defends child against peers
30. Responds to non-verbal cue other than hand-raising
31. Excessively polite
32. Keeps word
33. Fails to keep word
34. Praises and rewards realistically
35. Praises and rewards indiscriminately
36. Critical (does not point out good things in student's work)
37. Does not reward correct answer or good performance
38. Does not punish incorrect answer or poor performance
39. Acknowledges own error
40. Uses affectional terms like "honey" or "dear"
41. Awakes anticipation ("Now we are going to get some nice new books.")
42. The inclusive plural

VI. Are some things taught to some and not to others?

1. Do different age groups learn different things?
2. Do the sexes learn different things?
3. Are different groups taught different things?

VII. Discontinuities in the educational process.

1. Discontinuities between age periods
    1. In regard to techniques

Appendix A (continued)

        2. In regard to values
    2. How do all of these apply between the sexes?
        1. Are discontinuities different for boys and girls?
        2. The secrecy of initiation rites.

VIII. What limits the quantity and quality of information a child receives from a teacher?

1. Methods of teaching
2. Available time
3. Quality of equipment
4. Distance from the object
5. Ignorance or error of teacher
6. Stereotyping of the object
7. Failure of teacher to correct pupil's mistakes
8. Failure of teacher to indicate whether the pupil's answers are right or wrong.
9. Failure of teacher to respond to a question
10. General vagueness or fumbling of the teacher

IX. What forms of conduct control (discipline) are used?

1. Relaxed
2. Tight
3. Sense of propriety
4. Affectivity
5. Reprimand
    1. Direct
    2. Gentle
    3. Mixed ("We like for you to have an opinion but it is childish for you to shout out your numbers like that.")
    4. Impersonal ("Some of you are holding us up.")
6. Ridicule
7. Exhortation ("How can I teach you if you keep making so much noise?")
8. Command
9. Command question or request
10. "We" technique
11. Instilling guilt
12. Cessation of activity
13. Group sanction
14. Threat
15. Putting the child on his mettle
16. Non-verbal signal
17. Reward
18. Promise of reward
19. Special strategems
20. Awakening fear
21. Using a higher power
    1. Human
    2. Non-human
22. Exclusion

Appendix A (continued)

23. Punishment
24. Encourages peer-group control

X. What is the relation between the intent and the results of education?

1. Relatively high correlation between intention and results
2. Relatively low correlation between intention and results

XI. What self-conceptions seem reinforced?

1. Ego-forming factors
    1. Syntonic: praise, support, status inflation
        1. Grandiose self-conception
    2. Dystonic: blame, shame, guilt, fright, exclusion, depersonalization

XII. How long does the process of formal education last?

APPENDIX B

Assigned Bibliography for Special Study A Training Papers

Paper to be Written by Special Study A Ethnographers

Titles of Papers Written by Special Study A Ethnographers

APPENDIX B

Assigned Bibliography for Special Study A Training Papers

Brophy, Jere E. and Good, Thomas L., Teacher-Student Relationships: Causes and Consequences. San Francisco: Holt, Rinehart and Winston, Inc. 1974.

Good, Thomas L. and Brophy, Jere E., Looking in Classrooms. San Francisco, Harper and Row, 1973.

Henry, Jules, Culture Against Man. New York: Random House, 1963. (See especially Chapter 8, "Golden Rule Days: American Schoolrooms.")

Jackson, Philip W., Life in Classrooms. San Francisco: Holt, Rinehart and Winston, Inc., 1968.

Kirp, David L., "Schools as Sorters: The Constitutional and Policy Implications of Student Classification," University of Pennsylvania Law Review, Volume 121, No. 4. April, 1973.

Rist, Ray C., "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education." Harvard Educational Review, 1970, 40:411-51.

Rist, Ray C., "On the Application of Ethnographic Techniques to the Study of an Urban school: Notes on Methodology and Reciprocity." Unpublished and undated paper, Portland State University, Portland, Oregon.

Rist, Ray C., The Urban School: A Factory for Failure. Cambridge: The M.I.T. Press, 1973.

Smith, Louis M. and Geoffrey, W., The Complexities of an Urban Classroom. San Francisco: Holt, Rinehart and Winston, Inc., 1968.

APPENDIX B (Continued)

Paper to be written by Special Study A Ethnographers:

-- about 15 pages in length
-- to be turned in the morning that training begins (March 10)
-- all references on the reading list should be incorporated in the paper

This paper will examine the key concepts in educational ethnography as they are represented in the literature to be read in preparation for training. Discuss the operationalization of these concepts in the literature, citing specific behaviors that have been observed as manifestations of these concepts. Consider other ways of operationalizing (for classroom observation) these concepts. In addition, discuss how the various modes of operationalizing these concepts differentially influence the conclusions that are reached on the basis of ethnographic data. That is, various events and behaviors can be used to operationalize a given concept (and various concepts can be used to characterize given events and behaviors). Discuss the relationship between that which is observed, the conceptualization of that which is observed, and the conclusions that are based upon observational data and the conceptualization of that data. Relate your ideas to the literature you have read.

Key concepts that should be included in your discussion (you may add more):

1. The classroom as microcosm of society, including:

   a. Role relationships among members (students and teacher) of the classroom
   b. Authority in the classroom
   c. Social manipulation
   d. Values

2. Instructional variables
   a. Teaching methods
   b. Student participation
   c. Feedback (information from teachers to students related to the nature and appropriateness of student behavior)
   d. Teacher responsiveness to student behavior (including student questions)
   e. Control (discipline)
   f. The allocation of various types and amounts of instruction to different students.

3. Time
   a. The quantity of time devoted to different activities
   b. The distribution of activities throughout the day
   c. The sequencing of activities throughout the day
   d. The concept of time implicit in the organization of classroom activities (routine, order, promptness, etc.)

4. Proxemics (spatial relationships; distance both near and far, up and down)
   a. Where does the teacher perform different activities
   b. Where do the students perform different activities
   c. How does the teacher interact, in proxemic terms (near/far; up/down) with the class in general and with different students in particular

The concepts listed are not exhaustive, nor are they mutually exclusive. Organize the paper as you prefer. Just be sure to cover each of these concepts in some way.

APPENDIX B (Continued)

Titles of Papers Written by Special Study A Ethnographers

1. "Concepts for Observation in a Classroom"
   Patricia Avila-Hails

2. "Qualitative Methods in Educational Research - The World of Second and Fifth Graders"
   Elizabeth Broadhurst-Cauhape

3. "Ethnographic Research in the Classroom"
   Donal Fisher

4. "Notes on Key Concepts in Micro-ethnography"
   Gloria Golden

5. Untitled
   Marie Guignard

6. "Observing in Classrooms: Concepts and Their Operationalization"
   Gail Hall

7. "A Critical Reivew of Some Key Concepts, Operationalizations, and Conclusions of Educational Ethnographies"
   Kenneth Larsen

8. "Review of Some Literature on Schools and Society"
   Jean Meadowcroft

9. "On the Nature of the Operationalization of Key Concepts in Educational Ethnography"
   Terry Ruefli

10. "Paper to be Written by Special Study A Ethnographers"
    Norman Trondsen

11. Untitled
    Frank Day

12. Untitled
    Peter Enemark

APPENDIX C

Example of Summary Profile

Example of Classroom Map

Protocol Number: Summary Profile #1 C-1
Name of Researcher: Frank [redacted]
Date of Observation: First Week
Subject of Observation:

I - 2A Values

Topic 2 - Work, Success and Failure

The teacher emphasized the importance of enjoying school work. Having a good opinion of one self. Should enjoy work, should enjoy what you're doing. He expressed this to me several. He felt in fact that having a good opinion of themselves, enjoying what they did in class, enjoying their work, was the most important things to him in terms of goals in the class. And it would seem from their attitude that he was successful in his attempt to have them enjoy their work. He seemed to feel that he was successful in this. The teacher did not emphasize the concept of failure very much.

Topic 8 - Politeness, Tact

Politeness was a very evident value in the classroom. Politeness and consideration for one's other students. When students were being noisy in the morning, when one of the students wanted to the lunch count, or equipment reporting, or the Pledge, the class was quieted, but never just to be quiet, they were always quieted because they were making somebody wait. It was always couched in terms of consideration of another person. For instance, Doug would be standing in the back of the room waiting to start the equipment report, and the noise level in the room would be 2. Instead of asking the class to be quiet, the teacher would say, "Doug is waiting patiently." He would appeal to their sense of respect and politeness for another person. And they would quiet down. This happened very frequently. Politeness and consideration were probably one of the dominant values expressed in the classroom.

Cooperation and Togetherness

These values were considerably in evidence in this teacher's classroom. There were weekely, and sometimes even more frequently than weekly, meetings of the class. In these meetings problems the class was having would be worked out, attempts would be made to solve conflicts in procedural problems. The teacher was very interested in having a harmonious classroom, where everyone worked together, with as little conflict or strife as possible.

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A significant amount of his energy was directed toward this goal, as opposed to the attainment of strictly academic goals. It was necessary for the whole class to work out their seating arrangements for example. They were to do this themselves, he did not participate in this whatsoever. He said that it took almost the whole day, but eventually everyone figured out exactly how they were going to do it, and where everyone wanted to sit. It is my impression that this classroom was a very smoothly functioning unit. Roles were understood very well, and the routine went very smoothly. They cooperated with each other in the attainment of certain tasks. Such as the morning routine, PE was another example of cooperation and togetherness.

Novelity and Excitement

The teacher did his best to keep the kids excited about what they were learning. He seemed to fairly successful in this, as the kids were always interested, and they always wanted to move faster than he would allow them. They were excited about certian things in curriculum. Excitement was evident about the SRA reading labs. He had to restrain them from moving too fast on this. Excitement was evident during filmstrips, or even reading groups. People were excited that it was their turn to go first in reading groups. Novelity is a little harder to describe. The introduction of new reading programs during the year, could constitute novelity. As students did go onto SRA during various parts of the year, they did not all start on it. In fact, none of them started the year with SRA. Also considerable effort went into afternoon programs, that weren't reading or math. They were units on smoking, units on nutrition, and so forth, and units on map reading. These were all very novel because they kept changing.

Democracy

This value can easily be inferred by the complexity of the group structure. There is an elaborate system of monitors, who were responsible for the organization and execution of every activity, from choosing PE captains to and raising the flag, to writing the date on the board every morning. This was all suppose to be very democratic, everyone was suppose to have his turn. It was suppose to be rotated although not in any particular systematic method.

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Also, decisions concerning class routine were taken by vote during class meetings. It was all done very democratically. Important decision were usually made by the students with the advice and consent of the teacher.

Responsibility

This value is expressed in much the same way as democracy, cooperation and togetherness. The students were given considerable responsibility for the conduct of their own affairs. They were charged with working out solutions to problems they would face. They were charged with coming up with the seating arrangement for the rest of the year, this happened fairly early in the year. And they were charged with deciding things like, how the class should be taken from the classroom down to the meeting room, some distance away. This was decided in a class meeting and agreed to by vote. And the students responsibility was also trusted and emphasized in that the students were self-directed in many parts of the day. They started the afternoon routine by themselves and they regulated their own activity in many ways. They did not have any particular quota they had to meet in their individualized math instruction, they were simply trusted to move at a good pace. In some instance in problem cases, the teacher would prod, but generally the students responsibility was trusted.

Physical Intactness

That physical intactness was a value could be seen in the emphasis given to instruction on health. There was a two or three month unit on the dangers of smoking, where smoking was gone into in great detail, it's biological effects, and so on. And as I observed, the unit on smoking was emerging into a new unit on nutrition. People's bodies were seen as being important and they should know how to take care of them. The value of physical intactness was also apparent from concern for safety on the playground. Within a few weeks prior to my observation in the classroom, two kids had broken their arms on the gym equipment, so considering that physical intactness was of value the teacher forbade execution of the dreaded death drop on the bars.

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Solicitude and Kindness

This ties in with the politeness value somewhat. It was expected by the teacher that the students should show each other kindness and solicitude, and that they should respect each other. This is evident from the way in which he usually attempted to keep people quiet. As he usually not controlled for control's sake, but controlled because someone else was intruding in on someone else's rights. When someone was asked to be quiet, he would be asked to show consideration for someone else's needs for quiet at that moment.

Fun, Relaxation

That this was a value, can be seen from the amount of time devoted to fun and relaxing activities, such as PE. About 40 to 45 minutes every day was given over to a PE period. At the end of the day. This was a great deal of fun for everybody. All the kids played together, there was no division by sex. And they all played some physical game, like kickball or soccer, or something of that nature. There were also fun and relaxing activities during the class day, sometimes working with clay, drawing, making prints, etc. A fairly high proportion of the school day was given over to the art of enjoying oneself. The teacher participated in these activities, too, so it wasn't as if the kids were turned loose. The value of these things was underlined by the teacher's participation in them.

Fairness

Fairness was of considerable value to the teacher If someone is giving him a hard time, in the class, as happened in the beginning of the year, his appeal to the student would be couched in terms of whether or not the student was being fair to him by acting like that. Fairness to each other was also emphasized by the teacher in class meetings. Fairness to each other as a value was also exemplified in the teacher's instructions to the students before they were to undertake something serious, like the rearrangement of the room. He said that they could do what ever they wanted, as long as it was fair to everybody. It was necessary that everyone agree, everyone in the class, that the final result was what they wanted. Nobody could be left out. So it was a very fundamental value in this classroom.

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Honesty

In all the conversations with the teacher about the class and the students, I heard him use no value more frequently than that of honesty. He repeated over and over how pleased he was that he could trust these kids, and that they were now, as far as he could tell, completely honest. There had been problems of this in the past, and he had dealt with these and the student had dealt with these. Some of the students in particular had not always been that honest, they had tried to fool him, they had tried to fool other people in the class, some of them were chronic cheaters and liars, but not this was totaly solved, as far as he could tell. And I could tell from the way he was talking about this, he had devoted a considerable amount of time to underscoring these values. They could do whatever they want, as long as they were honest about it and would tell him. As he was bringing the students into line during the course of the year, the most cutting thing he could say was, "Well, I guess I just can't trust you, can I?" Honesty, and fairness and honorableness to his other students was stressed just as much as towards the teacher. The teacher discouraged snitching, and students discouraged it as well. It was assumed that everybody would be aboveboard and not tattletale on anybody.

II - How is the Information Communicated (Teaching Methods)

Reading

The classroom is divided into four reading groups. Only three of which concern us here, as the fourth is sent out for spelling and/or reading to a remedial teacher. The three groups in the room are organized as follows: the top group, known as SRA-I, has been using SRA reading labs for some time. The second group, SRA-II, has been in readers and workbooks for most of the year, and has just now during this week of observing, moved into SRA. The third group, uses a coordinated reader and workbook, and will move into SRA sometime in the near future. The teacher meets with each one these groups at least once a day, several times two or three times a day. When the students are not meeting in their group with their teacher, they are working on projects or worksheets at their desks. The class does

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spelling all together. Every spelling test however includes extra words, which anyone can take, but usually only the people in the top reading group concern themselves with this. The reading is individualized basically, but the spelling is not. The SRA materials appear to be pretty popular. The students are all very excited about them, and this causes the teacher a little bit of anxiety. Quoting from a protocol, "He now talks to the group about the possibility of them being too interested in this at first and then burning out." He says, "I realize that you are all excited about these SRA Labs, that you'd like to do 16 of these a day, but probably within three days you'd be sick of it. After you finish your lab for one day, read a library book or something, I don't want anyone doing more than one. If you have one unfinished from yesterday, you may do that one, and another one. But when you have finished, read a library book or something." The group which was not yet in SRA were very anxious about progressing to the point where they would be able to use it.

During the reading group in the morning, the student experiencing two kinds of teaching styles. He will either be in a group, assembled at the conference table with the teacher, or, working by himself. During both of these different times, he will have some access to the teacher. When the teacher is meeting with a group, the students can come up and talk to the teacher, although they frequently have to wait for a fairly long time for an opening. When no group is in session, at a particular time, the teacher circulates through the room, people approach him and asks him questions, or he comes over and checks on people that need help.

The teacher style, during the reading group session when the reading group is assembled at the conference table, is very distinctive. It's primary feature is intense and involvement of the student at all levels of the lesson. The teacher tries to stay out of it as much as possible.

The lesson frequently opens with a review of the previous day. The teacher will ask for someone to give a quick recap from the previous day. And after this it moves into the current lesson. The teacher's primary mode of teaching is by asking questions. So I suppose it's a good thing right now to describe his questioning and response style. He always uses a request sentence. He doesn't seem to pay much attention to who's hand is raised. He always seems to know who he wants to call on. He says the student's name, and then asks the question. Or puts the student's name at the end of the

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sentence. After the student has read a passage he nearly always asks a specific question of the student who has just finished reading. The question will frequently involve a word in the passage, or a concept. Sometimes after the student reads, there is only a brief comment, such as, "Okay, that's fine." Usually there's a question. In cases of incorrect response, the teacher rarely simply says no, he never says no, then provides the right answer. Typical responses are "No, that's not quite right." or "I don't quite understand." or "You're on the right track, but let's let Joey give it a try." His response to error is very mild and supportive For instance, the group is discussing the meaning of the word boundary was. Joey suggests "It's a certain spot" the teacher says, "A certain spot? I don't quite understand that. How do we describe the boundary of our playground?" And then April gives the right definition. He frequently lets the students define the error. If a student has just answered the question, the teacher's comment to the group is "Does everyone agree with that" or "How do you feel about that". He doesn't say whether the answer was right or wrong, he simply asks for comment. Then the students define the error if there was one. After this is done, the teacher may ask the student to defend his original answer. In this way, the student who made the error frequently sees the mistake on his own and retracts it. In the following example, the reading group (the middle one I believe) is reviewing an exercise in which questions were asked about a story they had read. The teacher says, "Steve will you read the first story and give us your answer." Steve does so. and then the teacher says, "Would anyone disagree with that?" meaning his answer. Hands are raised. He calls on a girl who says her opinion. She indicates that she thinks Steve is wrong and gives a reason. The teacher now says, "Steve, will you support your choice?" There is a rapid exchange among the students at the table, about the relevant passage. Steve recognizes that he has misread a word. Another student is asked for his answer to a different question, and the identical process is repeated again. He calls on Linda who answers and then asks for disagreement. The dispute is eventually worked out in a discussion among students. Almost all the learning and teaching is conducted by the students themselves during the group. The teacher guides it by asking pointed questions, but almost never answers them himself. I saw instances where the students could not find the answer to a question and the

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teacher simply passed it by, rather than answer it himself. Finding the right answer in fact, is not important in this class. What is important is the reasoning process behind it. During group meetings this is especially striking, as the teacher continually underscores the fact that the students are to pay attention to ideas the people are giving and to respond to the reasons, and to give relationships that lie behind things. The actual matter of the answer is not as important as the process it is arrived at. This emphasis on reasoning and logic is particularly evident during the correction of a worksheet exercise done by the lowest group. This was a logic exercise involvin the filling in the blanks in sentence completions They were mostly synonyms and antonyms, plus some blanks which were based on past tense or future tense, and so forth. They were basically complete the analogy type questions. Some of these were extremely difficult, and I was not able to do them myself. Some of them were simply ridiculous, as the teacher said. In this example, the teacher begins by calling on April, he emphasises the fact that he does not want the answer, he wants the relationship between the two words that make the word right. He asks April, "Are you going to give us the relationship." She does, but she can't pronounce the word which is synonym. Then the next question, somewhat more difficult, quoting from the protocol, "Glance is to stare as wheel is to (blank)." There is a long discussion in which the teacher does not take part. April says the correct answer is steer. So it would be Glance is to stare, as wheel is to steer. There is a discussion as to whether the wheel mentioned could be a steering wheel. Sean and Duwayne say the right answer is spin. This continues for sometime, the teacher speaks up, "I think we need to give our reasons for this (meaning a particular answer) and listen to the reasons people give. I want everyone to give a reason for what they say. The best way to find out, is to listen to people who have ideas on this." He asks April to describe her idea and then he asks someone to describe the relationship between glance and stare. The answer is that one happens quickly and the other is a prolongation of that same thing. The teacher then asks, "Sean would you explain why you chose spin?" He explains that it is not at all clear what the answer is. None of the available options printed at the bottom of the page seem to fit. April then asks where the answer sheet is. She knows that te teacher does not answer questions, so she justs asks where the answer sheet is. The teacher replies, "Let's hear some more ideas first." There's more discussion, and finally the teacher says that if forced, he would have to pick spin, but he's not too sure. He goes to look for the answer sheet, but can't find it later. He then returns and says, well it's not necessary that we fill in everyone, we'll do it later. In discussing further, questions on the same exercise, the teacher stresses again and again, what counts is the basic relationship, and has the students reduce and reduce their answers until the basic relationship is arrived at. Note that this is the lowest reading group. The teacher's question style is sometimes used to keep the students on their toes. If for the most part, he does not choose from the raised hands, for the most part, it's not clear exactly how he determines who is to answer. Sometimes, someone appears especially eager. I think he tries to circulate around the group, and keep participatio on an even level for everyone. If he suspects that someone has not been listening, he may call on them and ask them to explain the next step, or to summarize for the group what has just happen. This occassionally catches people off-guard. He does not do this vindictively however, or very frequently. As mentioned before during group lessons, the teacher does allow a certain amount of access by individuals not in the group. During a group lesson, a few people can frequently be seen standing off to one side, waiting for an opening. Sometimes during a group lesson, the teacher will stand up and walk around the room as the students are reading a passage to themselves. Also, during the week that I observed, the teacher was doing a lot of testing in the SRA groups. These were always timed tests, about three or four minutes. So he would start the group, walk around and deal with other students, then come back and stop the group, and then start it again on the next text, and so forth. Sometimes a group would come up to the table, maybe three times in the course of a morning. They would come up, do an exercise, be given instructions, go to their seats, the teacher would see another group, then the first group would come back for reading and so forth. The teacher didmake use of games occasionally, to make learning more interesting. During the spelling test for instance, he announced that he would like everyone to do the extra spelling words, which were all words involving certain parts of the map, and certain geographic concepts, like latitude,

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longitude, parallel, meridian, and so forth. He announced that there was a game that could be played with these. And before he read the words, he went back to the closets and took the game out and brought it up to the front. Afterwards, anyone who wanted came up to the cnference table, and he launched into a more extended lesson, using his normal questioning style, on what these different words meant, and how they could be used to find places on the map. The game was to find a certain spot on the map, if you were given a certain longitude and the latitude, and how to give the latitude and longitude of a place once you already knew where it was. It's interesting to note however, that the teacher knew his limits. He knew when he was getting into something that was too complicated for the students to understand. At one point on this complete the analogy exercise, he is searching for a way to describe the relationship between fight and to win. The teacher says, "I would say objective, but I don't know if that would mean anything to you." They don't get it, there's a long pause, as he searches for a better way to explain what the relationship is between fight and win. He's talking very quietly and then says, "We don't have to write something for every question, let's go on to the next one." He realized that there was nothing that he could do at that moment to explain it, so he simply went on to the next. Also, when he was giving the lesson on geographical terms, he realized that he was moving too fast, and he backed off, stopped the lesson at a certain point, and had them go to theri seats with the information that he had already given them, rather than complete the lesson. They had enough to do considerable amount of the game, but he felt that explaining the terms completely, the difference between east and west, longitude and latitude, and so forth, would just really confuse the issue totall He had a very good sense of when to stop. Part of his usual questioning pattern, was to turn the question around and have one student explain it to another student, rather than explaining it himself. For instance, "Duwayne, will you explain to Joey what kind of word this is?" Another time, Barry asks a question, rather than answering it, the teacher says, "April, maybe you can answer this." This is a fairly typical pattern.

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III. Who Educates

This class besides the teacher, also has a teaching assistant, who is present most of the day. In the first part of the morning period, she teaches a remedial reading group. Then for the rest of the period before morning recess, she teaches remedial spelling, or visa versa, I can't remember which. For the rest of the morning, between morning recess and lunch, this is math, she is working at the conference table, with a few kids, it's a not a regular group. Who ever wants to take a test will come over to her and get a test, to move onto a new contract. Besides the teacher, and the teaching assistant, the students occasionally teach each other, on an informal basis. This is allowed, but it's not particularly encouraged, or discouraged, it's not institutionalized.

IV. How Does the Person Being Educated Participate? What is his Attitude?

The students attitude in this classroom is very positive. They are excited about their work, and they enjoy doing it. The teacher feels that there is no one in the class who does not enjoy being in school, or who does not want to be there, except for occasional days of course. The students are excited about specific things. They are excited about SRA, reading labs, and the ones who are not on it yet, are excited about the prospect of moving up to SRA in the future. Their attitude toward the teacher is very positive. I was told over and over again by students how much they liked the teacher This is very clearly evident, they approached him during informal periods, they followed him around, they would touch him, cluster around him on the playground, etc. They are very devoted to him and this is one of the way he exercised control, through their personal loyality. The students are definitely not passively oriented towards their education. They're interested in the content of a lesson. Before a lesson, they urge the teacher to do one thing or another, they urge him to do this story instead of that story, to do this instead of that. During a lesson, they are very eager to find the answers. They'll look things up in the book without being told, so that they can volunteer the answer. Some are excited about the fact that their group is going to be first. I overheard conversations. First, in order of meeting in a day, I heard conversations between students to this effect. The students had no reservations about making independent decisions or suggestions At various times, they would contradict the teacher when he read an answer, or they would question. His word was definitely not law in this case. They apparently felt quite free to ask for further clarification, or direction. They seemed to have no reservations about asking for him to explain himself when they could not understand what he was talking about. They contributed spontaneously within and without the context of the lesson. They were very eager to participate at sharing time in the morning, and at various other times. It was a very vocal group. Only maybe 5 out of the 30 or so students in the group were chronically extremely quiet. These kids were not unhappy, they were just very quiet individuals. They're were spontaneously humorous, they laughed a lot during the day. There was a great deal of high spirits and laughter and so forth. They were spontaneously expressive towards both the teacher and each other. They felt free to approach the teacher physically and they were relatively mobile during the class period. During periods of intense work noone moved around much, but in many other times of the day, there was considerable mobility in the classroom, especiall during mathematics, where instruction where instructions were individualized. It was necessary to be mobile to get help, because they had to follow the teacher around, or go to his teaching spot in the back of the room, or go to the SRA files, or to the math contract files, and so forth. They did not hesitate to praise the work of peers, to me at least. I was told many times who the good people in the class were, or how smart so-and-so was, so forth. Very little cut downs, except humorously. Only one student in the class appeared to have a pariah status. Everyone else appeared to get along very well. I was very struck by the warmth and friendliness of this classroom. I didn't see any fights the whole time I was there. It seemed to a very pleasant place to be. They used the teacher's last name, they called out to the teacher, and occasionally they would try to quiet the class on their own. Or when one student had to conduct some sort of public performance or perform some sort of public duty in front of the class, like lead the Pledge, they would give advice to that particular fellow student on how the class should be quieted at that moment. They were sort of interested in looking after the common interest of the class. While monitors were being chosen to write the

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date on the board, the students suggested that this particular student should be chosen because she had good handwriting. It seems to me that this looking at someone's objective talents, how they can be used for the good of the class as a whole, was sort of impressive. They weren't interested in being chosen themselves. Many parts of the day are administered by the students themselves. The day begins, the opening exercises, usually are begun without direction from the teacher. Also, there is no direction from the teacher for the beginning of the math period. They get right to work.

V. How Does the Educator Participate? What is His Attitude?

The teacher really seems to like the class. He told me this over and over again. And he was quite affectionate with the kids. He seemed quite secure in the class. He was not overly demonstrative, he did not touch the students very much. He was very good about putting decisions up to the children. As described earlier in the section on values, he had, at least weekly and sometimes more frequently than that, class meetings in another room in the school. During these meetings the students would discuss common problems and decide how they were to be dealt with. The decisions were always left to the children, they were taken by a vote sometimes, after long discussion in which he made sure that everyone's point of view had been seriously considered. He made sure that people listened to each other. He really tried to give then a sense of responsibility for their own affairs. He was encouragining when someone's spirits were lagging, he would try to boost them. He was very mobile. In fact, he was extremely mobile. He moved all over the room, except for reading groups, when he was seated at the conference table. At other times, he did have one particular teaching spot, in the rear, on a movable encyclopedia book stand. People would come back here to talk to him, or if he met someone in the middle of the room, they would both occasionally go back, leaning on the book case. He was a personalizing teacher, he used request sentences with names, sometimes with the name only. He was definitely not a depersonalizing teacher. He really treated the kids as individual personalities. He knew a great deal about them, he knew their backgrounds, he knew their homes, and he treated each one of them as an individual. He accepted their approach during the class and at other times. He seemed to like having the kids around him. They liked to walk with him when going out to the playground. He would put his arm around their shoulder. Jostle with them. He liked to play with them at PE sometimes. One day when I was there he was playing with the soccer team and I was on the other side. He was accepting of the child's spontaneous expressions. He found this sometimes very amusing and showed that he appreciated it. He was humorous, particularly during a non-academic period. During reading and math, reading particularly, he was extremely serious, very deadpan expression, very firm tone, throughout the reading period, extremely firm. But during math he was much lighter, was a much more informal class, he moved around and talked to individuals, he had more time to joke. Reading however, was not this way. He handled anxiety, hostility and discomfort very well. One time he was faced with a problem with a girl who had some sort of block involved in doing her work, she couldn't do it, she couldn't explain what the problem was, he sat down with her, to one side, and probed to find out what was really bothering her. Earlier in the year, there had been a lot more personality problems coming out in the classroom, and he told me about these. It seemed that he was very secure, and very capable in handling this sort of thing. He defended the children against their peers, on the rare occasions when it was necessary. When the inter-student ribbing or kidding around would get too intense he would calm them down. When Tricia would approach the front to begin one of her interminable stories about her vacation some of the boys would sometimes make a comment, and he would lean on them very hard for comments of this nature. If any particular student who was being victimized, and there appeared to be one student who was victimized now and then, he would protect them. He wanted to make sure that everyone's individual rights were respected all the time. This was perhaps the dominant theme of the classroom. He responds to non-verbal cues other than hand raising. He was very sensitive to people's states of mind at the time. He kept his word. He praised and rewarded realistically, he was definitely not one given to gushy positive reinforcement, or outbursts of unrealistic praise. In fact, he said very little along the lines of reinforcement. He was sort of the New England style teacher, very taciturn, didn't say much during teaching periods. He would use short one or two word comments like very good, or okay, and so forth. but he was held in such high esteem, that this went a very long way. The kids saw him as being extremely realisitic and real, there was nothing phony about him. He did not put anyone on, or attempt to deceive anybody into thinking that their work was better than it was. He did not for instance have a teacher's voice, he used his normal voice all the time. He did acknowledge his own error, and he occasionally used, at some points regularly, the inclusive plural -- let's put away our books and so forth.

VI. Are Some Things Taught to Some and not to Others?

The answer to this briefly would be no not really. The different groups were using differen reading materials of course, but there was no real qualitative difference in the things they were learning. The lowest reading group for example, had several lessons that was extremely oriented towards substantive understanding and conceptual matters, not just the phonetics or mechanics. And the same thing was true of higher groups. All the groups seemed to get their share of spelling, phonetics, pronounciatio and conceptual substantive material. As far as math, some things were taught to some and not to others, of course, some people were stuck on mulitplication, others were doing decimals, everyone was doing their own thing as it were. There was also the remedial group that went out for spelling and/or reading and/or math. Some of these kids, 5 of them, were only in the room during the non-academic subjects. Others were gone only for spelling. The lowest reading group for example, had some people who were gone only during spelling. And other students weren't in the room for reading at all. But basically there was not a strong differentiation between different groups.

VII. What Limits the Quantity and Quality of Information A Child Receives From a Teacher?

A. The difference between the quantity and quality of information given to the two groups of students in the triad.

As far as mathematics goes this is fairly clear in that the students were all at different places. The two good students in the triad were working on fairly advanced levels, decimals and ratios, whereas one of the lower students still hadn't learned her multiplication tables.

despite months of trying. And the other boy in the lower half of the triad was also at a lower level of achievement than the girls. They both got a fair amount of attention however.

B. Time

The students in the lower part of the triad got more time and attention from the teacher than did the ones in the higher. The ones in the higher worked most of the time by themselves, and rarely interacted on an individual basis with the teacher, maybe only a few times a week. Whereas the other students, one in particular, would see the teacher continuously, countless times during a day. Most of the instructional time seemed to be spent in acquiring skills rather than in socializing. The percent of time was of course impossible to determine. Few students got any particularly high amount of controlling behavior. Controlling behavior would be oriented at one of the students in the triad, one of the lower students, he was put at the teacher's desk to do the work, as he was not concentrating at his own desk. He was not controlled that frequently, he was just controlled this one time, and then he spent the rest of the week at the teacher's desk. His name was not brought up in a control context very frequently, no one's name was. A few students got a particularly large amounts of rewarding behavior. The rewarding mechanism revolved around the use of tickets. When a student did well on a test, he or she would get a ticket, this could be cashed in later for free time. The problem was that the students were not spending their tickets. The way some students were accumulating them, that by the end of the year they would be able to buy off about two weeks of free time. And if this is termed rewarding behavior, the students who did well got more rewarding behavior in that they got more tickets. As far as interpersonal rewarding behavior one particular child seemed to get more because she interacted with the teacher more. But there were no really obvious disportionalities.

C. Proxemics. How Does the Teacher Utilize Space in the Classroom?

The groupings of the students in the classroom is basically very simple. There are four groups. These groups do not correspond with reading groups. Students from all three reading groups that are present in the room, will be present at any given table. But there was some amount of correlation. Usually at any given table most of the students would be from one group or another. This is somewhat problemmatic as the connection was not very obvious at all. The two students on either half of the triad, the lower or the upper, did not sit at the same table. In fact all four students were seated at different tables, each one at each of the four. The front left group seemed to be somewhat higher, but it had one of the lowest kids in the triad. The right group seemed to be sort of a low group generally. But like I said, this is not very clear. The teacher seemed to exhibit a certain amount of downness behavior. He usually bent over the student, unless the student was also standing. He frequently sat down next to a student during discussion. During discussions, the teacher and the student were usually very physically close. They were standing right next to each other, or leaning over a table together, or something of this nature. No one seemed to get more upness or downness than anyone else except for one particular child who usually worked standing up during math, and sometimes on a chair so that she could reach the top of the blackboard. But this is all fairly trivial there were no serious differences.

IX. What Form of Conduct Control was Used?

The control was not very heavy. There were only infrequent mention of the noise level, and these mentions were only when it was necessary for the accomplishment of a task, high noise levels were let go otherwise. If the teacher was attempting to do a reading less with a group he would request the rest of the class, usually specific individuals, to be quiet because they were trying to do a reading lesson, or because the teacher could not hear a certain individual talk to him, or because the students could not hear him in the reading group. At any rate, there was always a specific reason given why the class should be quiet at that particular moment. Blanket edicts for quiet were almost never used. The rule was that if a command for quiet was given, it was for a reason, and the reason was given. The reason would be an accomplishment of a task, or the reading of a menu or doing the equipment or something, along that line. Discipline was rarely defined in negative terms. Usually it was indicated that something would go much better if a student would do it differently. There was always sort

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of a positive picture painted of how nice things would be otherwise. Class generaly responded quickly and quietly, except sometimes in the first few minutes when it took a few minutes to get the class quieted down. As mentioned before, requests for quiet were generally couched in an appeal to a sense of consideration for others. There was only a minimum amount of control and direction necessary to execute the passage from one activity to another. Usually there was a standard four or five word phrase that marked the transition, such as "Let's clear our desks." or "Let's get out our spelling books." These two were the ones commonly used. It was evident occasionly however, that the teacher was getting a little bit annoyed or irritated, especially when the students were not listening to his instruction. For instance, here's an incident at the beginning of a group meeting at the conference table, quoting from a protocol, They sit at the table, the teacher asks, "Does anybody have any questions about how to fill out the record sheet?" The noise level at the conference table is 3. He lets it continue for several minutes without saying anything, then he says, "I didn't get any answer to my question. Does everybody understand how to fill out the form?" His voice tone in here would convey a certain amount of irritation, or sometimes he might change the phrasing to "I assume that everyone must understand this." or something like that. Usually a comment would be very brief and to the point. Once and awhile when he found a case where a student had simply been goofing off and had been doing nothing at all but talking, he would really get uptight and would yell. Once or twice during the week, he really yelled at someone, never the class at a whole. His voice would occasionally get quite stern and firm, particularly when he was telling one kid to ease off another kid. Sometimes his tone with the kid who had not been doing up to par would convey more a tone of disappointment than of discipline. For example, "Gee, it's really too bad you didn't get that done before recess." His tone would make it very clear that he was upset with the student, but his voice would not rise. Generally his voice was firm, but quiet. It didn't vary much during the reading lesson, it was firm but quiet. He generally seemed loaf to use control. He would let something go on for awhile before saying anything about it such as the following example taken from the protocol. He waits a minute before starting, glancing over at the

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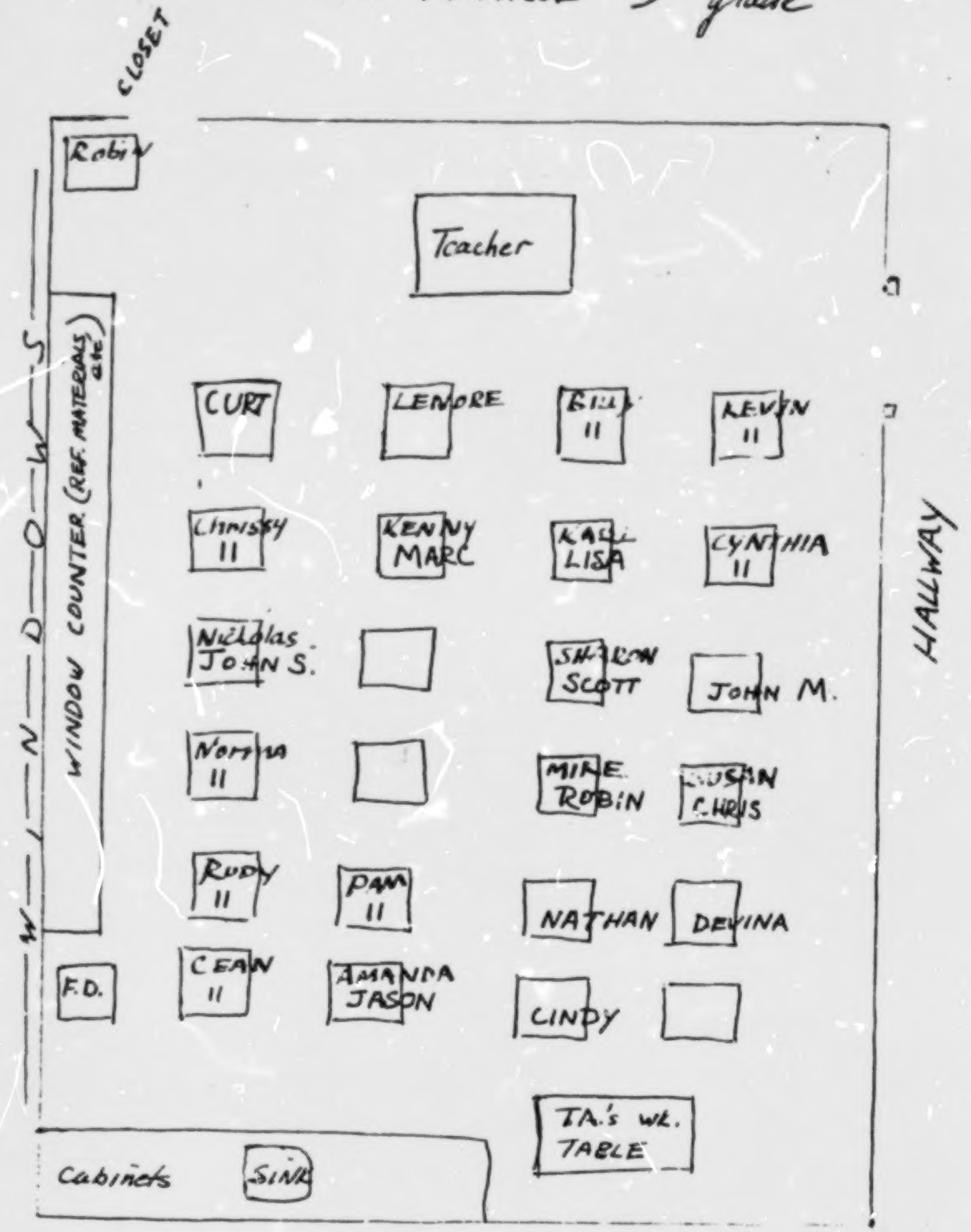
noise at the right table between three people. (He's about to start a reading group meeting at the conference table.) He seems to be wondering if he should do anything about it. He apparently decides not to, he starts anyways. Two minutes later he stops, and he addresses these people at the right table, in an exasperated tone, "Hey, I'm trying to read to some people here. Not only is the noise interferring with my reading, but with their listening." He reads for another three minutes, the article is about listening and reading skills. He stops again and sends one of the children still making noise back to the small table near the teacher's desk. This also exemplifies a rare instance where he sent someone from one part of the room to another. There were probably only three such instances during the entire week. And it was done without any histronics, he simply quietly told the kid quietly to go to the back of the room.

X. What is the Relation Between the Intent and the Results of Education?

I asked the teacher what his intents were. He said that his intents were that people should enjoy why they're doing, they should have a good opinion of themselves, they should have a good attitude about themselves, and they should enjoy being in school. If these were his intents, then there definitely was a high correlation between the intents and the results. Because people did seem to have a pretty good opinion of themself, and they did seem to enjoy being in school. He enjoyed being there too. He did indicate to me that he felt he had succeeded in fulfilling his intentions. He did not tell me any specific goals that he had for the teaching of reading and mathematics but his general philosophy of enjoying what one was doing would seem to explain the very good results that he got in terms of achievement. People were reading up to the ninth grade level, and in mathematics people were doing very well. HIs methods in each were calculated to have people excited about what they were doing, they used fun materials, and in math stuff was individualized enough that people would not get frustrated by being left behind in the group. He worked with everyone individually so that he would give them a lot of support. So if this particular method is a spin-off of his intent, that people should enjoy themself, then his results in reading and math would appear to be connected. END.

MRS. MONROE - 5th grade

C-20



Reading Lesson

MATH Lesson + Homeroom

APPENDIX D

Manual:
Ethnographic Observation of Classrooms

Ray C. Rist
William J. Tikunoff

APPENDIX D

MANUAL

Ethnographic Observation of Classrooms

Ray C. Rist

William J. Tikunoff

developed for use in

Special Study A: Beginning Teacher Evaluation Study

for the

California Commission for Teacher Licensing and Preparation

Far West Laboratory for
Educational Research and Development
1855 Folsom Street
San Francisco, CA 94103

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I. Overview: Ethnographic Observation

Educational research traditionally has relied upon quantitative data for studying teaching. Thus, reliance upon the technology of educational psychology has been primary to such research. While this has produced valuable information, it has also left much more information "uncollected," i.e., statistics based upon how students perform on normed achievement tests do not necessarily reflect what the teacher's instructional objectives were, what students brought to the learning task, what interactions took place between teacher and student during the teaching-learning event, what occurred in the classroom immediately preceding and immediately following the teaching-learning event, etc. In short, there is a growing need to gather such qualitative data in order to explain what occurs in teacher-student interactions in the classroom, and it is natural to turn to the behavioral sciences -- in particular, sociology and anthropology -- for the data collection technology in order to accomplish this task.

The attempt in Special Study A is to place in second grade and fifth grade classrooms a cadre of "sensitive observers" who have been trained in ethnographic data collection procedures. By utilization of techniques of observation, note taking, and dictation of classroom protocols -- which are the focus of training -- this cadre will collect such qualitative information to be added to the data bank of classroom information being used in the BTES.

II. Purpose of Special Study A

The overall purpose of Special Study A is to seek qualitative information about the variety of teacher styles in the teaching of both reading and mathematics at the second and fifth grades. Therefore, the focus of this study is on the teacher and specifically on how she teaches reading and math.

In stating the primary focus, however, it is understood that the collection of such information will also include teacher-student interactions, general classroom environment, and the perspective of the entire school day. For it is in such additional information that the patterns of daily classroom life emerge.

III. Ethnographic Observation Techniques

What follows are some very specific instructions that have emerged from the two weeks of training. While this is not to be viewed as an attempt to prescribe all points covered in the training, it should be adhered to as closely as possible.

A. Entering the New Environment

Assignment. You have been assigned to either a second grade or a fifth grade classroom. In no instance will you be expected to observe across these grade levels.

Initial Contact. First impressions are important, and how effectively you make your first contact will greatly influence the quality of your observation. These things are important:

1. A letter to the teacher and principal you will observe will be sent to them in advance of your visit. They will receive the announcement about ten days before your visit. You will receive a copy of the letters.
2. Contact your assigned teacher on the Wednesday preceding the week you will observe. She/he will be expecting your call. The telephone number of the school appears on your assignment sheet.
3. The purpose of your telephone contact is to (a) introduce yourself; (b) announce your arrival; (c) arrange a time on the Monday morning of the week you will observe when you can meet the teacher; (d) ask for directions to the school; (e) ask for the school's checking-in procedures for visitors; (f) ask about lunch facilities; (g) ask about the possibility of you and your assigned teacher meeting the principal together that first day. In short, think ahead.
4. Try to establish over the telephone a sense of cooperation, sincerity, and sensitivity to the teacher's problems in having an observer in the classroom for a week. This will ease your task considerably.

First Day. Generally, your first day in the classroom should be a get-acquainted day. Thus, you may not complete more than one formal observation this day. It is important, however, that by the end of the first day you have accomplished these tasks:

1. Draw a map of the classroom. This should be mailed with your first recorded observation. Include an accurate seating chart (where is the teacher's desk in the room? where do reading groups meet? is it an "open" or "structured" environment?).

2. Get a lesson schedule from the teacher so you know when she will teach reading and when she will teach math.

3. Get a seating chart from the teacher (if she uses one), or make one of your own. This will help in keeping track of students.

4. Somehow, examine the materials the teacher uses for teaching reading and math. In most instances, you will have to negotiate this to make certain the teacher knows you are in need of this in order to follow the lesson. CAUTION: DO NOT KEEP ANY MATERIALS, AND DO NOT REMOVE THEM FROM THE CLASSROOM. Make certain the teacher knows that they have been returned.

Invisibility of Observers. As closely as possible, you should adhere to the "invisible observer" rule. An unobtrusive observer will gather more data much more accurately. Remember to seek a place where you can watch, but where you will be out of the way. Be constantly aware that you might be intruding on a teacher's personal space, and take precautions to avoid this.

Remember: you are a non-participant observer. DON'T intrude on the life of the classroom you will be visiting for only five days.

Second Day. By the second day, you should:

1. Be able to take two formal observations, one each for the reading lesson and the math lesson.

2. Conduct an informal interview with your teacher in pursuit of two categories of information:

   (a) Who are two students who are doing well, and two students who are having problems? (NOTE: This information is to be pursued in the interest of helping you to "get a handle" on the newness of the classroom, particularly who's who. DO NOT present it in such a way as to infer to the teacher anything other then this.)

   (b) What is your teacher's philosophy concerning reading? math? teaching in general?

Control Check Day. For the day on which you have been scheduled to be checked by one of the controls:

1. Be certain you have informed your teacher. She needs only to know that on this one day, someone from the Lab will be sitting alongside you to be certain you are taking accurate notes. Inform her that this will be accomplished by his/her taking notes also.

2. Make arrangements to meet your control ahead of time. Inform him/her about anything he/she might need to know in order to successfully observe for one day.

3. DO NOT

   -- compare notes
   -- talk about the experience after.

Notion of Reciprocity. Observe the wise counsel in Rist's paper on methodology:

1. "Thank you's" and "Goodbye's" are greatly appreciated.

2. Be sensitive to most teachers' concern that "researchers don't stay all day so they miss some things."

3. Be friendly without being obtrusive.

4. Help when you can, but NOT while you are taking notes during a formal observation. Generally, try to impress upon everyone that you are there to observe, not to teach or "help."

5. Be a good listener, and be supportive of what you are told. You will gather much information in this way.

6. Remember: to "get", one must "give." (You will have to be the judge and determine the fine line between "giving" and when it interferes with your task.)

B. Data Collection (Observing and Recording)

For purposes of Special Study A, data collection will be composed of both formal observations (when notes will be taken) and informal observations (no notes taken; rely on recall). Pertinent information follows.

Formal Observation. These are observations in the classroom when you will be taking notes. Keep the following in mind:

1. Focus. Each day, you are to conduct one formal observation each for the teaching of reading and for the teaching of math.

2. Duration. The length of the observation will vary. It should, however, extend for as long as the reading or math lesson plus ten minutes before the beginning of the lesson and ten minutes following the lesson. This extra 20 minutes will yield valuable "transition" information and is important to the study.

3. Variations in scheduling. If your classrooms are organized such that the recording of formal observations is confusing or time consuming, call the Lab immediately for assistance to solve your dilemma.

4. Notation. When taking notes for formal observations, observe the following things stressed during training:

   (a) Collect essential information to be used in dictation, e.g.,

   -- date of observation
   -- subject of lesson
   -- number of students, and number of boys, girls, ethnic or racial demography if apparent
   -- grade level
   -- who's teaching (teacher, teacher aide; parent; other)

   (b) Notate the time you begin. Keep track of the time and try to intersperse the time every six minutes.

   (c) Notate the noise level each time you note the time. In general, the rule for noise level is:

   -- Noise level 0 = silence, or Teacher or one student talking in a lesson
   -- Noise level 1 = normal hum of working classroom
   -- Noise level 2 = higher than average; intrusive; above teacher's tolerance.

   (d) Proxemics. Where in the classroom is the teacher? Does she/he move around? When is the desk used?

   -- Upness-downness: Note when T is "up" or "down" with Ss.
   -- Away-close: Note when T is next to S and when T is calling across room to S.

   (e) Tone of voice. Be aware of voices of T: normal, teaching, controlling, social, etc. Also, note tone of Ss voices.

(f) Triad. Keep track of teacher's interaction with the four students you are particularly concerned with: the two whom the teacher tells you are doing well, and the two whom you are told are having problems.

(g) Teacher tolerance level. Try to determine when this is reached, and track how it is resolved.

(h) Physical descriptions. Note smiles, frowns, stature to dramatize quotations.

(i) Interactions. Keep track of teacher-student interactions, and keep them in sequence by "fleshing out."

(j) Periphery-centrality. Keep track of who is included ("in") and who is excluded ("out") by the teacher and/or students.

(k) Groupings. Maintain a sensitivity to the groupings of students within the class, both those organized by the teacher, and those which seem to grow naturally.

Informal observations. During the five days you are in the classroom, you will be expected to record some informal observations. While there is no set rule, one each day is desirable. Exceed this only when you believe it to be of utmost dependency toward understanding the classroom.

Subjects for informal observations (during which time you take no notes, and rely solely on recall) include:

(a) Interview the teacher. Discuss her/his teaching philosophy, especially as it relates to reading and math. Identify the two students the teacher believes are doing well and the two who are having problems. Listen, be attentive, and let the teacher free flow.

(b) The classroom: what is the environment like? How does it feel? What are on the bulletin boards; are they teacher or student initiated? For what purpose is the classroom organized?

(c) The faculty room. Sit, listen, discover, remember.

(d) The school environment. Describe the school. Go to recess, lunch, bathrooms, principal's office, etc. Is there a school-wide feeling? What is it?

Dictation. For purposes of dictation, it is important that you observe the following:

(a) Begin each cassette with the number of the protocol (number consecutively; don't worry about mixing formal with informal).

(b) Give your name.

(c) Give the date of the observation.

(d) Give observation details:
for formal observation, give
-- grade level
-- number of students with sex, ethnic, racial breakdown (if possible)
-- subject or lesson content
-- who's teaching
for informal observation give only subject.

(e) Time and Noise level. Give these at the beginning and every six minutes during observation.

(f) Be sure to label all tapes clearly and explicitly. Use the form provided with each tape. Mark the cassette as well.

(g) Talk clearly. Spell out any unusual names. If it is possible, please include a list of unusual children's names if you do not wish to spell them out on the tape.

(h) Indicate end of observation by saying "End of observation" or some similar term. Do not just shut off recorder.

(i) Include any unusual instructions along with tape, or else state these instructions on the tape, either at the beginning, or else immediately after the conclusion of dictation.

(j) Play back part(s) of your tape before sending on to Lab to be sure it is properly recorded.

(k) Avoid too much handling of microphone. Keep volume at a constant level.

(l) When mailing tapes back to the Lab, if you are sending more than one (1) package at a time, please mark outside of envelope as follows: 1 of 2, 2 of 2, etc. This will let us know how many envelopes to expect per observation.

(m) Quotations. Indicate beginning of a quotation by saying, "Quote" and the end of quote by saying, "End quote."

(n) Parenthetical Comments. If you wish to make interpretive comments either save them for the end of the tape, or indicate them by saying, "Paren" and "End paren."

C. Important Considerations. In addition to those things covered in training and mentioned abov e, there are a few issues which seem to need highlighting:

(a) Masking behavior. It will not always be possible to determine when students and classrooms have been prepared in advance for your visit. If you suspect that this is so, (a) indicate such in a parenthetical comment, and (b) watch for a "breakdown" and the emergence of the "real" pattern. This should occur by Thursday or Friday.

(b) Keep your tape recorder out of sight. It will help if teachers do not know that you are dictating your protocols.

(c) Feedback to teachers. At the conclusion of the analysis of summary protocols, teachers will receive all of the summary protocols for their grade level (twenty in all). There will be no way to identify their own or others. You must not enter into other feedback arrangements.

(d) Professional ethics. You should be concerned with three things:

-- the anonymity of teachers, students, and school;

-- the confidentiality of information you are working with;

-- the subservience of Study A to other pieces of the entire BTES.

You are not to duscuss your observations or the schools and personnel with anyone.

APPENDIX E

Training Manual for Interclassroom Raters

William J. Tikunoff
David C. Berliner

TRAINING MANUAL

for

Interclassroom Raters

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ABRUPTNESS (T)

We mean:

- teacher changes from one activity or lesson to another without advising students
- unanticipated change without "tying up" what was in progress
- pupils surprise or confused by teacher's change in behavior
- teacher switches from instruction to behavior management and back again

Examples:

1. Teacher, "Okay, get out your readers and turn to page 195." Students, "But we haven't finished our math worksheet." Teacher, "Sorry, maybe you can find time to do it later."
2. During reading lesson, teacher is listening to students in a small group reading aloud. Several times she interrupts whoever is reading in order to administer discipline to someone in another part of the room.
3. Students have been working diligently, but noisily. After several warnings, teacher says, "alright. Put your books away. Since you already know the materials, it's quiz time."

We do not mean:

- smooth transition between work periods
- eases in from one activity to the next

Examples:

1. Teacher makes sure that students understand what they are to do before starting the activity.
2. Teacher systematically monitors work, gives assistance when or before it is needed.
3. Before math begins students may get a drink and relax for a moment. Then they get their math books, and papers and begin their work.

ACCEPTING (T)

We mean:

- constructive reactions (overt, verbal, non-verbal) to students' feelings and attitudes
- teacher is aware of students' emotional needs and adjusts his/her behavior to accomodate them
- teacher takes time to discuss or explore students' feelings
- teacher seems willing to accept students' behavior without criticism

Examples:

1. After Susan wrinkles up her face and says, "Good grief!" she looks frustrated. Mr. Combe says, "Yeah. That's a tough problem."

2. Sometimes Karen goes back and forth to the teacher three or four times in a few minutes. Mrs. James commented on this and said Karen is a student who always has to get things off her chest before she can settle down to work.

3. The teacher talks to the class about how students and adults sometimes worry about whether they will do well on a task. Students also participated in the discussion.

4. The teacher goes over to Steve and says, "You've got a big frown on today. Is something bothering you?" Steve replies, "No." Teacher asks "Are you sure you don't want to talk about it?" Steve says no and the teacher says okay.

We do not mean:

- -- Criticism to the effect that students "ought to know better."
- -- Teacher ignores or refuses to talk about feelings
- -- Teacher pushes students to point they feel nervous or uncomfortable

Examples:

1. Billy has been out of his seat most of the morning. He has worked only from time to time and even then only for a few minutes. His teacher shouts, "Billy! Why can't you sit down and get to work?"

2. Linda punches George, and George starts crying. Mr. Smith looks at him and says, "Boys don't cry."

ADULT INVOLVEMENT (C)

We mean:

- -- parents, other adults give talks, share experiences
- -- mothers are encouraged to volunteer as classroom aides
- -- reading or math specialists are used

Examples:

1. A father, a flight engineer comes to school for talks on pilot training, the operation of jet engines, etc.

2. This teacher actively recruits and uses a pool of volunteer mothers. They help in the classroom with a variety of tasks.

3. During the afternoon math lesson, Mis Jenkes, the math specialist, is in the room to work with small groups of students on special math tasks.

We do not mean:

-- only the teacher teaches
-- no unpaid aides or volunteers in the classroom
-- teacher uses only her experience and materials, no outside talks, of demonstrations

ATTENDING (T)

We mean:

-- teacher actively listens to what a student is saying, reading, or reciting.
-- teacher acknowledges students activity by nodding, by saying "Uh-huh", "Yes", smiling or giving an appropriate facial expression.

Examples:

1. While Sandy is telling about her new cat, the teacher is nodding and smiling, looking directly at the girl.

2. Teacher interrupts Sam, who has interrupted Tracy, "Let Tracy finish, please." Then, to Tracy she says, "Go on Tracy." Teacher has walked to Sam and put her hands on his shoulders from behind. She continues to listen intently to what Tracy is saying.

3. Lucy is answering teacher question. Teacher waits while Lucy finishes, then asks, "And how do you feel about that Lucy?" Teacher looks questioningly at her and leans forward, listening.

We do not mean:

-- teacher lack of involvement in learning activities
-- teacher only pretends to pay attention to learning activity

Examples:

1. Student is reading her social studies report to the class. While this is going on the teacher is looking down at her desk and appears to be correcting papers.

2. Student is describing an incident involving her dog being lost. The teacher is staring at two boys in the back of the room. Teacher tells the boys that they should be doing their reading. Teacher then asks who was is it that was telling her story about the dog.

3. Student is reading to the teacher. It is curious that while the pupils are being evaluated, the teacher does not give his full attention to the student but simply goes through the motions in a very superficial fashion.

AWARENESS OF DEVELOPMENTAL LEVEL (T)

We mean:

-- teacher is aware of an individual student's emotional, social, educational needs
-- teacher assigns tasks appropriate to student's ability
-- teacher adjust tasks or instruction when students are appearing confused, uncertain

Examples:

1. A new student appears shy and insecure. Teacher allows her to stay close by in the classroom, then on the playground teacher encourages girl to play with others.

2. Teacher is instructing an individual student in pronouncing words. Later, she explains to observer that "Robin is younger than the others and finds some tasks difficult, so I give her extra help when I can."

3. Observer notes that some chldren are practicing cursive handwriting, while others are still printing. Teacher explains that she doesn't push children into handwriting too soon, especially if they are still having problems printing.

We do not mean:

-- teacher pushes students into activities that they are not ready for
-- teacher assigns tasks and instruction without regard for individual differences in students
-- teacher is bewildered at inability of students to perform tasks

Examples:

1. Student is trying to tie shoe lace, but says, "I can't." Teacher says, "You can if you want to. Otherwise, you'll go all day without your laces tied!"

2. After drilling on multiplication tables for a week, teacher has given class a test which they all failed. She relates to observer, "I really tried hard! I don't understand why they can't learn!"

BEING LIKED (T)

We mean:

-- teacher seeks personal approval from the students
-- teacher seeks reinforcement from students

Examples:

1. The teacher appeared genuinely hurt when Barbara did not respond warmly to a smile.

2. In an interview, the teacher stated that being liked by students was important to her.

3. The teacher reaches out to put hand on shoulder of Ann. She pulls away. Teacher looks hurt, and tries to pursue Ann, but Ann runs away to play with other girls across the playground, not responding to teacher who calls after her.

We do not mean:

-- teachers responses to self are not so important as responses to instruction
-- teacher has workman like friendliness
-- teacher is not upset when students do not return warmth

Examples:

1. Teacher said, "Being mad at me is not going to do you any good, Kevin."

2. In an interview, the teacher said, "I don't mind being thought of as an old meany, if students listen better."

3. Walking with an entourage of pupils, teacher said, "Yes, I have several helpers today." Her tone was matter-of-fact.

BELITTLING (T)

We mean:

-- teacher berates child in front of other students
-- public display of teacher's negative perception of students

Examples:

1. Mr. Walters asks Donald if his hands are dirty, if he can remember when he washed them last. Then he sends him to wash his hands. When Donald returns, the teacher asks to see his hands again. Mr. Walters says, "You didn't wash beyond your wrists. Go wash again."

2. Ms. Jacobs asks Craig to list the objects he has just read about in a paragraph. He beings listing them. Each time, the teacher demands more information. She says "Not tires, what did they have to do with the tires? Not oil. What did they have to do with the oil?" He lists six items. Ms. Jacobs says, "Craig only got six. Who can give us the rest?" Later with another boy, she says, in an encouraging tone, "James got five. Let's help him get the rest."

We do not mean:

-- teacher statements which express acceptance of students

Examples:

1. Teacher says, "Johnny tried hard. He got six right. Let's help him get the rest."

2. Teacher tells Robin privately, "You've done better before. Let's see if you can improve your score on the next test."

COMPETING (T)

We mean:

-- competition is emphasized by teacher
-- outdoing others is made a desirable trait by the teacher

Examples:

1. When passing out the dittos, teacher said, "The first one finished can choose the softball team."

2. Teacher said to Maria, during a math contest, "You got it right first, so you get the point," meaning that Maria would have another point added to her total score.

3. On the bulletin board is a chart with students' names. The teacher has used smiling faces to denote an assignment completed. She stands at the chart with Sandy, and says, "You see how many more smiling faces Lucy has then you?" You don't want her to beat you, do you? Now get to work."

We do not mean:

-- teacher emphasizes cooperation among students
-- working for independent completion and satisfaction is stressed by teacher

Examples:

1. The students are helping each other finish the math ditto.

2. One student called out that he was finished first. Teacher said, "So?"

3. Teacher says, "It is not a contest. We want to do good work."

COMPLEMENTING (Control) (T)

We mean:

-- teacher expresses verbally her approval of good behavior to a group of students so that others were aware of their discipline problems
-- teacher's action reinforces student(s) whose behavior is in the right direction
-- teacher attends to good behavior and ignores the bad

Examples:

1. Teacher said, "I really liked the way Table Two is working quietly." (The students at Table One were shouting and out of their seats.)
2. Teacher says, "Betsy has all her materials and is ready for work" -- as other students are also getting ready.
3. Teacher constantly praised the positive behaviors of a child who had continuous discipline problems.

We do not mean:

-- teacher controls discipline by admonishing the individual or gorup that is creating discipline problems
-- correcting misbehavior directly
-- criticism, especially statements which imply that the student should have known better

Examples:

1. "John, why don't you ever clean up your desk?"
2. "Stop talking and do your work."
3. "Sarah, go to your desk and put your head down."

CONSISTENCY OF MESSAGE (Control) (T)

We mean:

-- teacher gives a direction or threat and then follows up on it
-- consistency in message and action by the teacher

Examples:

1. "If you don't quiet down you'll stay in for recess." Class had to stay in because they did not quiet down.
2. "You can't go home until you clean up the room." Teacher made sure the room was clean before dismissing the students.
3. "If you finish your math, you may then work on your independent projects." Only students finishing their math were allowed to work on their independent projects.

We do not mean:

-- inconsistency in message and action by the teacher
-- difficulty in determining teacher standards regarding conduct and control
-- no follow through with threatened action by teacher

Examples:

1. Teacher threatens student by saying she will take away points if she does not sit down. Student continues to stand; teacher ignores action.

2. Teacher asks student to go out in the hallway. Student does not leave. Teacher ignores his behavior.

3. Names of students who are to stay after school are placed on the blackboard. Teacher does not keep these students after school.

CONVIVIALITY (T)

We mean:

-- warmth; family-like quality to classroom interaction
-- good feelings between teacher and student, students and students
-- friendship encouraged between teacher and students; students and students
-- lots of smiling
-- tension-free atmosphere
-- teacher and students laugh together

Examples:

1. Teacher is moving about room, stops at Lucy's desk. Lucy looks up, shows her work to teacher. Teacher laughs, Lucy giggles delightedly. Teacher touches Lucy on shoulder, then moves on and Lucy goes on with her desk work.

2. Teacher greets children in a friendly way. She has her arms around two girls.

3. Often the teacher and children will discuss things that have happened to them outside the context of school and instruction. For example, over the week-end Tony hit a homerun in a baseball game. He spoke about the game to the class and a discussion then evolved with some children mentioning their participation in little league and others stating whether or not they liked to play baseball.

4. When student is taking his pulse he says, "I lost mine at sixteen." Teacher says, "Do it again." She is pleasant about this and Billy smiles at her.

5. Even when teacher corrects students her tone is soft and encouraging.

We do not mean:

-- laughter at someone else's expense
-- joviality on part of teacher, but not returned by students, or visa versa

-- rigidity of classroom interaction
-- unfriendly atmosphere within classroom
-- hostile feelings expressed between the teacher and students and between students and students

Examples:

1. Teacher cannot seem to get the children to cooperate with her. She often addresses students in a loud and unfriendly tone of voice.

2. Two groups of students are often seen taunting each other and causing disturbances within the classroom.

3. Most of the teacher's time seems to be spent reprimanding students

COOPERATION (S)

We mean:

-- student expresses willingness to help other student
-- teacher requests that students help each other
-- students attend to what is being taught and appear to cooperate with the teacher
-- student helps other to finish a task, lends an object to another, etc.
-- affection and warmth among students

Examples:

1. Students would do their work without complaining.

2. During a math class Ricky shouts out loud that he needs an eraser. Dino says, "I got one!" Vicky also offered him her's.

3. Teacher calls on Kelly, "What does it look like?" Kelly cannot answer. Then the teacher asks Kelly to call on someone else to help.

4. Students write stories to each other. Teacher distributes letters among students. Teacher asks, "Does anybody else want to read?" Sharon says, "I do but I can't read it!" Denise offers to read the letter for her, which she begins to do.

We do not mean:

-- student hits another student; swears to another student, spits at another, pushes another
-- student refuses to help other student
-- students are not allowed to help each other answer questions
-- students are encouraged to compete with each other

DEFENDING (T)

We mean:

-- teacher defends one student from verbal or physical assault by another

-- teacher handles positively situations of hostility on the part of the students

Examples:

1. A group of children start to correct a child who has made a mistake. The teacher says, "I'll do the correcting."
2. Sammy calls Joe a "dummy." Ms. Nalley tells Sammy not to call other students names.
3. Two girls say they are bored at the length of the explanation by another student. The teacher tells them it is better to take the time to understand.

We do not mean:

-- teacher ignores students assaults on each other

-- teacher reacts negatively to situations of hositility

Examples:

1. Buddy slaps Anita. The teacher goes over and swats him and says, "Now you see how it feels."
2. In a reading group, children are constantly correcting each other's mistakes. They chime in before the student has a chance to correct himself. The teacher ignores this.
3. On the playground a fight breaks out between two boys. Teacher says to ethnogrpaher, "I'll let them fight for a few minutes. The I'll break it up. It's good for them to work their hostilities out."

DEFIANCE (S)

We mean:

-- the student refusing to comply

-- a student's open show of resistance to teacher

-- students answering back to the teacher with ridicule and hostility

Examples:

1. The teacher asks the students not to go to the drinking fountain while she is giving instructions. Tony gets out of his seat and goes over to the fountain anyway.
2. The teacher tells Sammy to move to another area. Sammy stares at the teacher with his arms folded and refuses to move.
3. The teacher yells at Mary to "Be quiet and get back to work." Mary yells back, "I wasn't talking, so shut up and quit telling me what to do!"

We do not mean:

-- a student who complies with the teacher's request
-- a student who submits to a teacher's demands or threats

Examples:

1. The teacher asks the class not to use the pencil sharpener during an oral reading session. The students remain in their seats and do not use the sharpener.
2. The teacher tells Terry to move to another area because of his talking. Terry gets up and moves to the designated area.
3. The teacher yells at Sarah to "Be quiet and get back to work." Sarah stops talking and continues her work.

DEMOCRACY (T)

We mean:

-- student input is sought by the teacher in developing class standards
-- opportunities are provided for students to participate in decision making process in the classroom
-- teacher uses voting as a means for arriving at group concensus
-- freedom of student movement in classroom
-- teacher often turns over teaching tasks to students (peer teaching)
-- monitors, group leaders are selected by rotation, or class voting

Examples:

1. Teacher began the week by asking everyone to fill out his contract for the week. To do this, each student had to decide what he wanted to do each day and schedule it in on his contract.
2. It is time to seelct team captains. Teacher says, "Okay. Nominations are open for team captains for this week." The class goes on to nominate and elect. This is a process they go through every Friday for the next week.
3. Ethnograpehr says: "In this classroom, students are allowed to move about freely. They do so quietly and in a businesslike manner."

We do not mean:

- -- teacher rules all activities, makes all behavior rules for classroom
- -- teacher selects all monitors, group leaders, who gets to go first, etc.
- -- autocracy
- -- students are not allowed to move in classroom without teacher's permission

Examples:

1. The teacher lists all classroom standards (rules) on the blackboard on the first day of school without student input.

2. Teacher, "Stop that talking! Do as I say, I'm the boss here. How much are you getting paid? I'm the teacher--I do the talking!"

3. A game of "Scrabble" is about to being. One girl asks to go first, and a second girl says, "You can't go first. Teacher always says who goes first."

DISTRUST (T)

We mean:

- -- the teacher shows or verbally expresses doubt as to the validity of the student's behavior
- -- the teacher demands proof that the students have done their own work
- -- the teacher arranges the seating in a deliberate attempt to prevent copying or comparing of students' work

Examples:

1. While passing back test papers, the teacher approaches two boys. "You both failed. Your answers were exactly alike, and I can't tell who cheated, so I gave you both an 'F'."

2. The teacher requires the class to take home all the math papers for the week and have them signed by their parents and returned to her as proof that they did not cheat.

3. The teacher says to the class, "During this time, I do not want you to sit next to each other-- I want to be sure that I get your answer, not your neighbors."

We do not mean:

- -- the teacher evaluating a task or behavior after the fact at face value
- -- the teacher allowing the class to answer questions or arrive at answers in a consensus mode
- -- the teacher allowing the students to sit with friends and peers while accomplishing an assignment requiring written answers
- -- the teacher accepting the explanation of a student who has been accused of cheating

Examples:

1. The teacher approaches a group of students who are talking. "I can hear you talking, do you need some help with your work, or are you able to get it without me?"

2. The teacher is asking for students to read orally words on flashcards. Jerry can't pronounce the word, so Alice turns to him and says, "I think it's car not care."

3. When Johnny says, "I did it all by myself," (explaining that no one at home helped him, which is what his teacher asked), the teacher says, "Good for you, Johnny." She accepts his explanation.

DRILLING (T)

We mean:

-- teacher emphasizes retrieving from students memory of subject matter
-- teacher uses materials which emphasize regularization, rote memory
-- teacher asks students for verbatum recall of material

Examples:

1. Teacher conducted a drill to the group where she called out "Two times two?" The class as a whole said, "Four!" Then the teacher asked, "Three times three?" The class answers, "Nine."

2. Teacher has written on the blackboard some vowel sounds. Teacher points at a vowel sound and quickly asks Sandra to say it; then points at another sound and asks John to say it. Teacher keeps doing this with all vowel sounds and with all the students in the class.

3. Teacher says a word. Students spell it in chorus. Teacher says mechanically "Whipped." The students spell it in chorus. The teacher says, "Next word is whitest." The children spell "w-h-i-t-e-s-t." While this is going on the teacher is standing pacing up and down the classroom.

We do not mean:

-- repetition is not emphasized by teacher
-- teacher does not emphasize memorizing tasks
-- teacher asks different questions to individual students

Examples:

1. Teacher is talking about the difference between "we" and "wee." She asks Mark "Can you spell for us the first we?" Mark spells it correctly. Teacher asks him "Can you now give us an example

of "we" used in a phrase?"

2. Teacher writes 8 on the blackboard. Teacher asks Janet, "How many twos add up to make 8?"

ENCOURAGING (T)

We mean:

-- teacher gives supporting statements to the students as they are doing their work
-- teacher attempts to motivate students by admonishing their efforts

Examples:

1. The teacher notices that a student has been working on one particular problem a long time. She approaches, looks at the work and says "You seem to be working hard at this, and I'm sure you are very close to getting it, Patty."

2. Teacher tells student it would be great if she could learn the multiplication tables by heart because it would be easier than counting on her fingers.

3. Teacher is helping Patrick with math. "Now that you know how to invert, division of fractions should not be difficult. Why don't you try to do the last three problems yourself?"

We do not mean:

-- the teacher criticizing the students responses or answers as being "wrong" or "not good enough"
-- the teacher responding to work turned in by students by saying, "Do it over, it's not what I want," or "Your answers are incomplete, go back and finish."

Examples:

1. The teacher is working with a reading group. She asks a student to tell her, "What did the boy in the story do when he got home?" The student says, "He ate dinner." The teacher responds by saying, "No, and if you had really read this story carefully, you would have known the correct answer."

2. The teacher is looking over a set of math papers which were turned in. She stands up and says, "I am handing back all of the papers which were turned in this morning. I can see that you were not listening to directions and I want you to work at them until they are finished and correct.

ENGAGEMENT (S)

We mean:

-- students appear to be involved in the learning activities

ETHNICITY (T)

We mean:

- the teacher expresses positive, informative comments about race, class and ethnic contributions
- the teacher encourages class discussion about cultural contributions

Examples:

1. The teacher is talking to the class about Latin America and she says; "I'd like to spend some time telling you about some of the famous people from these countries and what they have contributed to the world."

2. The teacher is acknowledging the birthday of Martin Luther King and says to the class; "Can anyone tell us who this man was, and what kind of things he did for black people?"

3. The teacher corrects a student, saying, "I don't care what they said in the movie. We call them 'Japanese', not 'japs!"

-- students look productively busy
-- students react positively to the teacher's encouragements, they appear eager to work
-- students express happiness through gestures, verbally, etc., at giving the correct response

Examples:

1. Student goes to the teacher and shows his workbook to her. The teacher says it's correct. The student goes back to his place with a big smile on his face.

2. Students are discussing a story they have read. They smile, laugh and talk a lot while discussing.

3. Teacher asks the class, "What do you have to share with us this morning?" Most of the students take turns and share with the rest.

4. Observer's note: "They are working industriously and don't seem distracted by the construction going on outside the window, even though it's driving me crazy!"

We do not mean

-- students seem bored, not involved, unhappy
-- students don't appear to enjoy or participate in the learning activity
-- teacher must administer much discipline because of disruptiveness of students

Examples:

1. Teacher has instructed the students what to do. Teacher announces that it's time to begin working. Students should pick up their ditto sheets. Students remain in their seats, nobody seems to move. Students don't seem to want to work, they look unhappy.

2. Students are working on their math contracts. Paul looks around he's daydreaming. He's not interested in working

EQUITY (T)

We mean:

-- teacher tries to treat students equally
-- teacher seems to divide her time equally among students
-- teacher is aware of and attends to inappropriate behavior of students, whether or not they are usually "good" or "bad"

Examples:

1. Teacher notices the high reading group is talking, not working. She says, "Don't think that you don't have to work just because you're in that group."

2. An observer notes: "The students who are at the low end do get a fair amount of reinforcement and attention, but so do the kids at the high end."

3. When asked which students were doing well and which were having problems, a teacher declined to answer. He explained that different students had skills in different areas.

We do not mean:

- -- partiality; playing favorites
- -- picking on kids
- -- teacher shows different behavior to different students according to their academic ability

Examples:

1. The teacher sees Kenny and Rob fighting. He sends Kenny to his desk and then bawls Rob out and sends him to a corner of the classroom.

2. Kate is sitting at her desk gazing out the window and not working. The teacher looks over at her, but does not say anything. Yesterday, he bawled out Rita for doing the same thing.

3. Renee brings a workbook up to Ms. Banks, who is seated at her desk. Ms. Banks goes on correcting papers and ignores Renee. Renee goes back to her seat and asks the girl next to her for help, saying, "She never answers my questions. She doesn't like me."

EXCLUDING (T)

We mean:

- -- a student sent to a corner, out of the classroom, to a separate area for purposes of discipline
- -- a student being kept in at recess, lunch, free activity period to make up work or for discipline
- -- a student being isolated from his/her ability group or a group of students being isolated from other ability groups, by the teacher, usually as disciplinary action

Examples:

1. The teacher is writing on the blackboard, turns around and asks, "Who's talking over there?" Teacher asks Susan to go and sit in a chair next to his desk.

2. A student does not finish his work in the allotted time period. He is sent to a corner to finish while the rest of the group goes on to another activity.

3. The teacher is working with a group, hears noise at the back of the room, turns and says, "Susan, leave the room and go straight to the office."

We do not mean:

- -- social closeness among students of different abilities and behavioral characteristics
- -- teacher dealing with a student's problem in a personal way, face-to-face
- -- teacher asking a noisy student to move to another table where he/she will be encouraged (by example) to finish the task

Examples:

1. The teacher is working with a group, hears talking, turns and says, "Susan, I think you're talking might be interferring with the task you are doing."

2. Teacher realizes student has not finished assignment, says to the student, "Susan, you might want to work on this at home, so you won't fall behind."

3. Toward the end of a reading period, the teacher says, "Class, I'd like to have you share your story summaries with two other people in the class. You may share with two people of your choice." Students move to seating areas of their choice.

EXPECTATION (T)

We mean:

- -- teacher bases his ideas about predicting the success of students on the basis of past information about the students, their siblings, or their "background"
- -- teacher attributes scholastic problems of children to inherent "problems" of the children, such as emotional problems, mental ability, "background"
- -- teacher feels own lack of significant effect on student's education

Examples:

1. The teacher is talking to her top reading group. She tells them, "You know what I expect of you since you are the top group."

2. Ms. Erikson is talking about several children in her class. She tells the observer, "I can't do much with them. Their parents are either getting a divorce or have just remarried. It really messes the kids up."

3. Ms. Clay told the observer, "Bobby, is EMR (educable mentally retarded) so I just let him sit and pretend to read. I don't think he can do anything else."

4. Mr. Bradley is talking about his past twenty years of teaching. "A teacher merely represents one year out of the educational life of a student and there is not much one person can do about the pupil's total education.

We do not mean:

-- teacher accepts each child at his own level
-- teacher feels he directly affects the students' lives

Examples:

1. The teacher tells an observer, "You know, we have just a year with them, but you just have to do all you can."

2. A teacher talks about kids of various abilities, "Sometimes kids come in, testing low, or with bad grades, but later on they bloom. They hit their stride."

FILLING TIME (T)

We mean:

-- the teacher fills up empty time periods with activity which is designed as "busy work"

Examples:

1. The teacher announces that there is time left during a reading lesson. She says, "Everyone get a dictionary and find the word 'allow'." "Write the word, the page number, the guidewords and definitions for the words I list on the blackboard."

2. The teacher tells the students in a reading group, "When you finish reading the story silently and the time is not up, re-read the story to yourselves."

3. The teacher says to the observer, "Fridays are the worst days. The kids don't want to do anything after lunch, and I go crazy trying to think up things to keep them occupied."

We do not mean:

-- the teacher uses extra or unplanned time for creative, social or interest level activities

Examples:

1. The teacher has not prepared a specific lesson plan for a reading group. She says, "I don't have a lesson prepared for today. What would you like to do with reading today?"

2. The teacher finds that the math activity finishes fifteen minutes earlier than she had anticipated. She announces to the class that they may sit with a friend and do an art activity of their choice during this time.

FLEXIBILITY (T)

We mean:

- -- teacher can change to something else in the middle of a lesson if the students are restless or disinterested; in this sense, she does not "plow ahead full steam" and keep trying if it seems futile
- -- teacher adjusts easily to change in plans, time schedule, absenteeism or change in behavior of students
- -- teacher can be persuaded by students

Examples:

1. John went to the teacher and said he was tired of reading and wanted to do math for a while. The teacher said it was alright.

2. The teacher showed the class three different ways of reducing fractions. Then she told the class. "You can use whichever way you like best."

3. In the middle of a lesson, the fire bell ran. When everyone returned to class, the students pleaded with Ms. Thompson to not return to math, but to go on to social studies. They did group work yesterday and were anxious to return to it. Finally, she laughed and said "Alright! Alright!"

We do not mean:

- -- rigidly sticking to lesson plans "no matter what"
- -- becoming immobilized and confused in emergency situations or under severe stress

Examples:

1. Teacher says, "I don't care if it has stopped raining. You finish your spelling and then we'll go out to play."

GENDERING (T)

We mean:

- -- girl-boy distinctions are made
- -- male-female roles are assigned and reinforced by the teacher

Examples:

1. Jill is class monitor for the week. But the teacher sends Bob on an errand. She says to Jill, "It's raining outside and your dress might get wet."

2. The school day is ending and the class is preparing to go home. Ms. Parrish says, "I'd like a nice big strong boy to close the windows."

3. At the end of each school week the teacher gave rewards to "Best Boy" and "Best Girl".

4. Boys and girls play different games at physical education. The boys are playing soccer and the girls are playing volleyball. The teacher says soccer is just too rough for girls.

We do not mean:

-- the teacher does not distinguish between boys and girls in assigning tasks, etc.
-- the teacher reinforces equality of the sexes

Examples:

1. Mr. May wants the students to carry some stacks of new books from the book room. He asked for volunteers, and chose Bert, Yolanda, and Marcia.

2. Boys and girls play together at PE throughout the week, whether they are playing soccer or tag. Ms. Finch plays along with the class or acts as referee.

3. The children are doing an art lesson based on a week at a science camp. Both boys and girls made designs and are sewing them in stitchery yarn on burlap.

HARASSING (T)

We mean:

-- the teacher physically hitting a child
-- the teacher taunting, pestering, nagging, hazing
-- the teacher "putting down" kids

Examples:

1. Lisa was playing dominoes with some of the other girls. The teacher came over, then slapped her on the rear, and told her to go sit down.

2. Peter is at the blackboard, trying to do a math problem. The teacher interrupts him constantly until the boy is rattled. The teacher comments that the boy can't even do simple division.

3. David has been wearing a baseball cap today. In midafternoon, Ms. Carter suddenly turns to him and says, "What's the matter with you? Don't you know the rules? Get that cap off right now!"

4. Mr. Withers is trying to get the attention of a group of students who are watching a sound filmstrip intently. He walks over to the group, knocks over the screen and and shouts at them.

5. The teacher goes around the classroom, looking at the children's work. She is commenting to them, "You'd better get going," "where's your work," "You want to go to the office, okay?"

We do not mean:

-- the teacher acts respectfully and politely to students
-- the teacher describes behavior objectively and may give a reason for his/her criticism

Examples:

1. The class is beginning to talk more loudly. The teacher looks up from her seat, she is working with a reading group, and says, "Excuse me. Too many students are talking for us to hear each other."

2. Brian comes up to Ms. Anderson while she is working with Ted on a math problem. He interrupts and starts talking. Ms. Anderson tells him, "Brian, I'm listening to Ted."

IGNORING (I)

We mean:

-- teacher pays little or no attention to students possible needs
-- requests have to be made in order to get teacher's attention
-- teacher seems to deliberately "not hear" or "not see" so that sometimes a student is treated as being invisible

Examples:

1. Book case falls on boy. Boy is leaning over holding knee. Teacher never asks the boy if he is hurt or pays any attention whatsoever. Her only acknowledgement of incident is a look of disgust.

2. Tonya comes into the class crying. Teacher keeps on explaining, she doesn't pay attention to Tonya's problem.

3. Toby asks teacher a question. Teacher walks by him and continues down aisle to Maria, where she leans over her desk and talk to her. Toby asks question again, louder this time. Teacher continues to work with Maria, then walks back to desk. Toby watches her, but says nothing, defeated.

We do not mean:

-- teacher shows concern for students needs.
-- teacher asks question to student or students about his/her immediate needs (academic or personal)

ILLOGICAL STATEMENTS (T)

We mean:

- -- teacher makes a statement whose consequences would be ridiculous if carried out
- -- teacher makes a task defeating statement

Examples:

1. Mrs. Crowell's second graders are talking more and more as lunch time nears. Several children are out of their seats and are going around the room talking to other pupils. Bobby is playing at the water fountain. Suddenly Mrs. Crowell walks to the center of the room and exclaims "I could scream but I'm going to wait even if it takes all week."
2. The class is talking excitedly as they begin a lesson on drawing triangles, squares, and other figures. Mr. Wright shouts at them. "Some of you will have a hard time doing this without a ruler. If you don't quiet down, I'll put them away, and you'll have to do it without them."
3. The students are talking and not working much. The teacher tells them "If you don't shape up, I'm going to send all of you to the principal's office."

We do not mean:

- -- teacher makes commands which make sense for the situation concerned
- -- teacher gives directions with a reason

Examples:

1. During an art lesson, Beth and Melissa start dabbing paint on each others faces and arms. The teacher sees this, tells them to stop, and to wash off the paint. She also tells them they can stay in at recess and clean up the room as punishment.
2. Ray comes up to the teacher with an addition problem. He asks her whats 3 plus 4. The teacher does not tell him the answer. She says "Let's look at your number line and figure it out."

INDIVIDUALIZING (T)

We mean:

- learning tasks are designed to match the interests and abilities of individual students
- teacher arranges contract or agreement with individual students defining work expectations
- independent work or individuals working in small groups is found within the classroom

Examples:

1. Students had a variety of activities to choose from and performed them without any direction from the teacher.
2. Students have individualized math contracts and go to teacher for help when they are having difficulties.
3. Students' assignments are given on board. Students decide when they want to work on each particular lesson.

We do not mean:

- the entire class is taught the same lesson at the same time
- all students are assumed to have the similar abilities
- students are given the same instruction and graded on a group standard

Examples:

1. "The class will please turn to page 45 and do exercise A."
2. "I want to make sure that each and every one of you complete your social studies lesson before going out to recess."

JOB SATISFACTION (T)

We mean:

- teacher seemed to enjoy teaching, i.e., teacher seemed happy in what she was doing.
- teacher stated that she enjoys children and she behaved in the classroom as such; i.e., smiles at students; teacher spends a lot of time with students after class hours (recess, cafeteria, etc.)

Examples:

1. Teacher expressed to the ethnographer that she had always wanted to teach.
2. In an interview the teacher says that she enjoys teaching very much.

3. The teacher spends nearly all of her time in the classroom with the children. She is there before and after school, at recess and at lunch time. She smiles warmly at the students as she works with them.

We do not mean:

- -- teacher exhibits insecurity in teaching
- -- teacher states that he is studying law and is only temporarily teaching
- -- teacher seems to be bored in the classroom, rejects kids out of the classroom

KNOWLEDGE OF SUBJECT (T)

We mean:

- -- teacher demonstrates a grasp of the subject being covered
- -- teacher seems confident in teaching within a given subject

NOTE:

This is a general attitude which pervades the entire day, and thus results in an impression about the teacher's knowledge of the subject.

MANIPULATION (S)

We mean:

- -- student is able to get on demand a desired response from teacher
- -- student behaves purposefully to attract teacher's attention and disrupts the sequence of the class
- -- students manipulate teacher to gain their own way

Example:

1. Erik adopted the following strategy: he pestered the teacher until the teacher was so frustrated that he (teacher) would leave him alone.

2. When Monica could not get into the Keno game, she began to cry. The teacher immediately responded, "What's wrong, dear?" When Monica came to tell her, the teacher walked her back to the group. "See. You made Monica cry. Now, either let her play, too, or I'll have to lock up the game."

3. Teacher reprimands a boy. Boy asks "What is the definition of those words on the blackboard?" Teacher answered him in the middle of her reprimand.

We do not mean:

-- teacher controls the demands of students and deals with them at their proper time
-- teacher's aware of students interruptions to disrupt and reacts by ignoring.

Example:

1. Teacher is explaining a math problem at the blackboard. Mark shouts at the teacher that Alex had just taken his pencil away and says he won't give it back to him. Teacher tells Mark that they will discuss this problem during recess time.

MOBILITY (S)

We mean:

-- students move freely around the room and are allowed to work at places other than their assigned seats
-- students sit or lay on the floor

Example:

1. Mark is lying on the floor doing his math contract. Teacher bends down to Mark, she is explaining something to him.

2. Students are working on their math contracts. Mary stands up and talks to Jimmy. Peter is also out of his chair, sitting by Charlie. They are working together.

3. During the reading lesson with one group, other students were moving about the room purposefully, going to different learning stations and working diligently.

We do not mean:

-- students are not allowed to leave their seats
-- students can not choose where in the classroom they can work

Example:

1. Paul moved to work with George. Teacher sees him and tells him "How many times do I have to say that everybody should only work at their seats."

MOBILITY (T)

We mean:

- the teacher moving about the room freely
- the teacher being spontaneous in her movements from area to area when the need arises

Examples:

1. The teacher tells the class: "I would like to have you work with a partner of your choice on this project" she then moves from group to group during the activity.
2. The teacher is working with a reading group--observes some confusion taking place in another group--gets up quietly and goes to that group to see what the problem is, then returns when it is resolved.

We do not mean:

- the teacher sitting behind her desk during all class activities
- the teacher fixing herself to one area of the room during a given period of time

Examples:

1. The teacher says to the class: "All the people who need help with their math worksheets may come to me at my desk." The children file up to her desk, or go up in groups.
2. The teacher says to the class: "I'm going to be working at this corner of the room today. I want to work with the people who need extra help in math. I expect the rest of you people to do your work silently and stay in your seats."

MODELING/IMITATION (T-S)

We mean:

- students copy teacher's behavior
- teacher asks students to imitate her/his behavior
- students feel important when working with or using objects that belong to the teacher

Examples:

1. A child is disciplining the class. He says, "If you guys talk, you can sit down and you can try it over." Later he said, "Shut up! I said to get ready for lunch."

2. Gloria holds her finger to her lips to quiet down her neighbor who is talking.

3. The ethnographer says that girls in this classroom tend to imitate the teacher's way of dressing.

4. During free play some students draw on the board the tally system the teacher uses in scoring quietest team. They seem to get pleasure from playing teacher.

5. William walked around the classroom shaking teacher's keys in the face of other students and smiling when he was given the responsibility for carrying them.

We do not mean:

-- students don't seem to express any identification with teacher's objects or behavior

MONITORING LEARNING (T)

We mean:

-- teacher contacts students regularly and systematically
-- teacher check in on each pupil's progress periodically, and adjusts instruction accordingly
-- teacher utilizes constant process of diagnosing students needs when prescribing instruction for them

Examples:

1. As children are working on math worksheets, the teacher goes from student to student to check on their progress. She notices Josh is having difficulty. She tells him to go back to page 185, and work through the examples. When he has done this, he should bring his work to her before he proceeds.

2. Ms. Yates gave her fifth graders a pre-test on a punctuation unit on the use of commas. If student did well, they were given one set of worksheets; if they did poorly they received a different set.

3. Ms.Josephson grouped her second grader class for reading according to their achievement test scores at the end of first grade. As the year proceeded she moved students from one group to another according to their reading progress.

4. Mr. Sanchez has an open classroom, where children set their own work schedules. He keeps an appointment sheet so that students may check in for "consultation" each day. If students do not check in for a day, he requests that they make an appointment for the next day.

We do not mean:

- -- teacher attends to students only as they call out his/her name; class is chaotic, disjointed
- -- teacher makes little or no contact with students except to pass out or collect papers
- -- teacher teaches same lessons to entire class without regard to individual differences

Examples:

1. Students are working on workbooks at their desks. They call out, "Me. Me" and "Ms. Glover, Ms. Glover." The teacher runs from desk to desk, trying to answer all the students questions.

2. The teacher sits at his desk correcting papers. He puts a score on each paper and returns them to the students, without comment. If students ask him about the tests, he simply says, "Well, that's an A," or "That's a C.."

3. Ms. Hall gives the same lessons to the entire class for mathematics. No matter whether students have done well or poorly on past work, they all receive the same new lessons.

MORALIZING (T)

What we mean:

- -- the teacher emphasises goodness versus badness
- -- the teacher verbally expresses ideal behaviour model for students
- -- the teacher labels "good" manners and "bad" manners.
- -- the teacher tells the students that rules should be obeyed because
- - they are rules.

Examples:

1. The students come in from recess. The teacher says " I appreciate citizens who come in and sit down quietly."

2. Billy is jumping up and down. The teacher sees him and says "Billy, that is no way to behave".

3. Two children are fighting. The teacher reminds the students that the principal says "there should be no fighting in class." Ricky says that he doesn't care what the principal says. The teacher answers him that she does care what the principal says because she has to obey the principal.

4. The teacher asks Mary to answer a question. Rita interrupts Mary. The teacher tells Rita "Don't speak out when another student is speaking."

We don't mean:

-- the teacher remains silent on a moral issue
-- the teacher presents both sides of an issue
-- the teacher doesn't mention goodness versus badness
-- the teacher explains the reasoning behind the rules

Examples:

1. Robert wanted to know if it was all right to run in the hallway. The teacher said he would have to decide for himself.

2. Two girls were fighting. The teacher broke it up, but said nothing about it.

ONENESS (T)

We mean:

-- teacher treats children by groups rather than as individuals
-- teacher uses peer group control
-- teacher treats whole group as a "one"

Examples:

1. Before a test the teacher announces, "If anyone cheats the whole class will stay after school."

2. The teacher gives citizenship points according to the group's behavior. One group got zero because Bobby talked a lot. The other students booed Bobby.

3. The class is finishing an art lesson. The teacher tells them "You can't go to recess until Tommy finishes cleaning up."

We do not mean:

-- teacher judges behavior of individuals
-- teacher controls individuals rather than groups

Examples:

1. The teacher notices Debbie has not cleaned off her desk. She tells her, "Debbie, you must clean up your desk before you can go to lunch."

2. Ms. Prince awards "Big Bucks" for good behavior. As the class began she walked around giving a "Big Buck" to those children who were quiet.

OPENNESS (T)

What we mean:

--the teacher verbally acknowledges feelings of anger, frustration to the class.
--the teacher makes a mistake; the teacher comments about it to the students; the teacher explains the mistake and looks for right answer
-- the teacher expresses to the ethnographer the need for self-improvement; the teacher evaluates his own strengths and weaknesses
--the teacher openly admits an error or an omission in her assignments and directions

Examples:

1. The teacher is reading a ditto sheet to the class. She notices some typing errors of her own. A child says "Maybe you weren't paying attention to what you were doing." The teacher answers "I guess I wasn't; I had alot on my mind."

2. The teacher expresses to the ethnographer that she is very unsatisfied with her method of teaching Math and hopes to work out a method of individualizing Math instruction in the future.

3. The teacher says "Sirina...my patience is really getting thin. I'm trying to help you, and you're not listening to directions."

What we do not mean:

-- the teacher masking negative feelings
-- the teacher is not willing to acknowledge own errors

Examples:

1. He misspells a word on the blackboard. Jean stands up and tells the teacher about his mistake. The teacher looks at the word and tells Jean "Go to your seat and take your book out." Jean always corrects him and he seems willing to take it.

OPEN QUESTIONING (T)

We mean:

- the teacher asks questions which call for interpretive answers by the students
- the teacher asks questions in which there is more than one permissible answer
- the teacher asks questions which are open-ended and have no specific answers

Examples:

1. "How would you know if the bear was dead or not?"
2. The teacher tells a student to blow on a chalked-in spot on the blackboard. The class discusses why the spot is getting lighter.
3. The teacher asks, "How do you feel about that?"

We do not mean:

- closed questioning: asking questions that are content oriented and having only one specific answer.
- when questioning students, the teacher stresses recall of previously learned material

Examples:

1. Who found the cave where the bear was living?
2. How much is seven times eight?
3. Who was the sixthteenth president of The United States?

OPTIMISM (T)

We mean:

- expressing positive, pleasant, optimistic, attitudes or feelings on the part of the teacher

Examples:

1. The teacher tells the observer that, although these students are the slowest she's ever had, they will do well because they are "good kids."
2. The teacher says to a girl, comforting her, "Cheer up. We all have occasional rainy days. But the sun always shines the next day."
3. The teacher says, "This is going to be a good day."

We do not mean:

-- when the teacher remains positive and this is inconsistent with the students' feelings or the present class condition
-- pessimism expressed by the teacher

Examples:

1. "Peter, I don't think you will get that Math done."

2. "When will this class learn to be quiet?"

3. " I wish it wasn't such a depressing day."

PACING (T)

We mean:

-- teacher monitors completion of tasks before proceeding
-- teacher is able to perceive student learning rate and adjusts teaching pace appropriately
-- teacher shows a realistic understanding of time needed for student or students work completion

Examples:

1. While students are working on a math problem at their desk, teacher moves around the room checking their progress. When everyone completes the task, she assigns another.

2. During a spelling test, teacher gave the word, used it in a sentence, repeated the word, then waited until all students had stopped writing before proceeding to next word.

3. The noise level in room rises. The teacher says "Okay, we are getting restless. It's time to move on to something else."

We do not mean:

-- teacher proceeds too fast, students show frustration
-- concepts and/or materials seem too difficult
-- teacher assigns more work than students can do in time given.

Examples:

1. Teacher begins to review yesterday's worksheet with group, realizes time structure, stops group and gives answers orally.

2. Teacher is explaining math problems. John says "I don't get it;" four other students chime in. Teacher keeps on explaining the math problem.

PEER TEACHING (S)

We mean:

-- students are allowed, encouraged, or assigned to help each other instructionally
-- older students teach younger students

Examples:

1. The teacher assigns David to help Norman in Reading.
2. Three students are seen working together figuring out the social study questions assigned to them.
3. A sixth grade student comes into the fifth grade to help students in Math.

We do not mean:

-- rigid rules about no talking and keeping in your seats
--copying between students just to get an assignment done

Examples:

1. The teacher says "Let's have no talking. You are each to be in your seats."
2. Students are having a test in Math. Jason looks over to Kim's paper and copies one of her answers.

PERSONALIZING (T)

What we mean:

-- the teacher calls on students by name

Examples:

1. The teacher calls students to the Reading group. She uses each child's first name.
2. The teacher called on students by name to answer Math problems or to go to the blackboard.

What we do not mean:

-- the teacher does not call students by name
-- the teacher refers to students by terms or group names

Examples:

1. The teacher calls on a student without using his/her name. She uses "you", "next".
2. The teacher is asking students to go out for recess. She says "Row one may go. Row two isn't ready."

POLICING (T)

We mean:

-- teacher spends most of her/his time controlling discipline
-- teacher insists on "correct" or "proper" form for doing things; more as a matter of form than necessity
-- teacher asks student/students to put their heads down as a means to control their discipline
-- teacher treats activities in a regimented way
-- teacher spends majority of time with housekeeping duties
-- students are required to repeat movements: group-to-seats, recess-to-room, area-to-area, etc.
-- undue emphasis by teacher on quietness, orderliness

Examples:

1. Teacher requires students to enter and leave room in lines silently. Teacher repeats drill 3 times until "they do it right."
2. Teacher tells the class: "You can't leave unless the line is straight."
3. Teacher interrupts a boy and says "Don't you know the right way to sit in a chair?"
4. Teacher is explaining something on blackboard. Teacher stops instruction and says: "I need eyes and brains here."
5. Ethnographer says: "I have seen where a whole period of teaching went practically to the problem of bringing the class in order."
6. During a math lesson while children are working at their desks, teacher spends all his/her time "Shushing" children, walking around room to keep order and quiet.

We do not mean:

-- minority of time spent with control and discipline of students
-- priority with learning or motivation to learn. Orderly atmosphere as means to ends
-- relaxed environment. Students feel flexibility of action

POLITENESS (T)

We mean:

-- the teacher frequently uses "thank-you," "please," when working with the students
-- the teacher encourages politeness by students toward each other and toward the teacher
-- the teacher requests rather than commands

Examples:

1. At the beginning of the Reading lesson, the teacher says "Please bring your book and come over here."

2. The teacher sees that Maria has grabbed Walt's ruler and compass. He tells her "Say please, and ask when you want something."

3. Mr. Schneider wants his class to finish their arithmetic papers. He tells them: "Would you please bring your papers up to my desk?"

4. Miss Tate wants some children to come to the reading table. She says : "Could I have your attention. Who would like to read now?"

We do not mean:

-- the teacher is rude to the students
-- the teacher allows the children to be rude to each other

Examples:

1. The teacher wants John to come to the reading group. She says: "John, get over here right now."

2. The teacher wants the class to be quiet. She yells at the class: "Five-four-three-two-one. I want it quiet! Shut up! Shut up now!

3. Greg grabs Eddie's toy truck and starts playing with it. Eddie tells him to give it back. Greg hides it behind his back and tells Eddie to "bug off." The teacher ignores this incident.

4. The class is playing multiplication bingo. Fred stands up and cries out "Bingo, I won!" Eric calls out "You liar, you did not." Several other children start booing. The teacher says nothing.

PRAISING (T)

We mean:

-- the teacher saying things that students like to hear
-- the teacher saying words like "good," "great" etc.
-- the teacher verbally rewarding the child

Examples:

1. A student brings work to show the teacher. The teacher says, "That's good."
2. The teacher says, "Good for you, you have done all the problems correctly."
3. The teacher says, "I am very pleased that all of you did so well on the spelling test."

We do not mean:

-- ignoring students
-- negative reinforcement
-- belittling students

Examples:

1. The teacher said "You should have done a better job on that test, Mark."
2. The teacher says, "Everyone be quiet."
3. The teacher says, "What's this terrible noise in here?"

PROMOTING SELF SUFFICIENCY (T)

We mean:

-- students take responsibility for their own classwork
-- students assume responsibility for their own belongings
-- students are placed in charge of certain clerical and housekeeping jobs.

Examples:

1. The teacher has a reqular schedule of assigning tasks to the students at the beginning of the week.
2. The students work independently and are allowed to check their answers in the teacher's manual.
3. The students are asked to organize their desks and belongings so that they know where things are and do not have to be dependent on other students or the teacher for help in locating things.

We do not mean:

--the teacher takes time to do things which students could better do for themselves.
--students do not have any responsibilities in regards to housekeeping jobs

Examples:

1. The teacher goes and gets a pencil (or paper, or book, etc.) for the student.
2. Students are constantly requesting the teacher to do things for them and the teacher complies.
3. Students are not given the opportunity to be monitors or to look after the housekeeping chores of the room.

RECOGNITION-SEEKING (T)

We mean:

-- teacher calls attention to self for no apparent instructional purpose

Examples:

1. As a homework exercise, the students were to write their birthdates in roman numerals. The teacher writes these on the board, as the children call them out. Then she writes hers on the board. She counts the number of letters in each numeral. Finding there are 9 in her's she exclaims, "Who's the winner? I am. I'm the oldest."
2. Ms. Martin is conducting a tic-tac-toe competition on the blackboard between boys and girls teams. When a game ends in a tie, she says, "This one is mine. I won."
3. Ms. Peters is sitting with a group of boys at the reading table. She finds an ant on her arm, cries out "Ooh! Ugh!" and squashes it. The boys ignore her.

We do not mean:

-- teacher doesn't try to call attention to self
-- teacher doesn't try to be center of attention

Examples:

1. Teacher is conversing with a reading group. They are talking about farms. She mentions that her father had a farm but does not stress this or dominate the conversation.

RUSHING (T)

We mean:

- the teacher speaking rapidly
- the teacher not giving the students adequate response time
- the teacher answering for the students to meet a pre-set time limit
- the teacher announcing how much time is left to finish the work

Examples:

1. The teacher says, "When you're reading this story, think about which number best summarizes the story"---continues immediately after a few have finished reading with "Number 12, right?"---"now let's have Chris read the story"---Chris reads two lines---the teacher stops the lesson because time is up.

2. The teacher distributes a Math worksheet and tells students that "they are to be finished by eleven o'clock." During the task, the teacher is constantly saying, "hurry up, you only have ___ minutes until eleven."

We do not mean:

- the teacher speaking at an appropriate speed
- the teacher allowing adequate response time to students
- the teacher asking for a response - giving further clues, helpful hints until a response is given
- the teacher allowing flexible time periods for tasks to be completed

Examples:

1. The teacher is working with a small Reading group. She says, "When you finish reading the story silently, I want you to tell me which one of these statements best summarizes the story." She waits until most of the students have read it and have indicated their choice. She then says," I would think that number twelve would be the most accurate answer."

2. The teacher distributes a Math ditto and asks the students to complete it by the end of the day. To those who don't finish, she says "perhaps you would like to take this home and work on it"---or---"I'm sure I can help you with this tomorrow."

SARCASM (T)

What we mean:

-- destructive comments, cutting remarks
-- responding in a demeaning manner

Examples:

1. Students are talking instead of doing their work. The teacher stands and looks at the class until they quiet down. Then she says : "If you want to talk, go ahead. Don't let me interrupt you."
2. Donna asks "How come we never read out loud?" The teacher folds her arms, looks at Donna hard and says, sweetly but sarcastically, "Because I know you can read."
3. The teacher turns to John and says "Why are you talking when I'm talking?" John looks at his desk and the teacher says "Well, go on, finish talking."

We do not mean:

-- constructive feedback
-- responding in a pleasant manner

Examples:

1. The teacher notices Chuck and Gary are talking. She says: "It's hard for me to hear Marianne read when you are talking. Please quiet down."
2. The teacher notices that the noise level in the classroom is rising as the students are working out some dittoes on multiplication. She says "Let's try to talk more quietly."

SHAMING (T)

We mean:

-- teacher creates situations in which blame is laid on students with the implication that they should have known better
-- teacher discipline students in a way that instills guilt and makes them feel inferior, not up to par

Examples:

1. Teacher states "I don't like to teach this way but you are making me do it."
2. Teacher, disciplining student, says, "You ought to be ashamed of yourself!"

3. Teacher goes into a long tirade on how the children are letting him down. He states, "You ought to know better than to behave that way. You know such behavior makes me feel bad!"

We do not mean:

-- emphasizing the good in an individual or group
-- giving constructive and optimistic suggestions

Examples:

1. "I think tomorrow we will take a break in the middle of math so that we get a chance to stretch and move around the room."
2. "If we can all work on our reading questions for another 10 minutes the period will be over."
3. "It looks as though you have had enough social studies so let's move on to our art projects."
4. "You have all worked very hard today. I am pleased with the group."

SIGNALING (CONTROL) (T)

What we mean:

-- the teacher expresses disapproval of a student's behavior with a non-verbal signal
-- the teacher uses body language, facial and eye expression or pauses to change student's behavior

Examples:

1. Nancy is reading another book instead of her reader. The teacher walks over and takes the book away without saying anything. Nancy gets out her reader.
2. Jack is out of his chair. The teacher snaps her fingers and glares at him. He goes back to his place.
3. The class is getting noisier as the time for recess nears. The teacher flicks lights on and off and the class quiets.
4. The teacher goes to the front of the room near the blackboard. She has several books in her hands, and then turns and writes several addition problems on the board. She then turns to the class. She stands with her arms folded, looking firmly at them. The children notice this and begin to quiet down and look at the board.

We do not mean:

-- the teacher expresses verbally what she wants the students to do

Examples:

1. The teacher sees that Sara is reading, not working on Math. He says "Sara, get out your Math paper."
2. The class is beginning to get noisy. The teacher says "Please be quiet."

SPONTANEITY (T)

We mean:

-- teacher capitalizes on unexpected incidents that arise during class time
-- teacher encourages the students to freely express themselves

Examples:

1. During a reading lesson one of the children notices a rainbow that has appeared. The teacher stops the task they are doing in order that everyone might see it. She follows this up by having a discussion about rainbows and why they occur.
2. A student brings to class a snake that he has found in his backyard. The teacher alters the day's lesson plans to build on the incident.
3. Teacher asks students to become involved in a role playing activity on what it is like to be an Indian in the 1800's. She encourages students to express their feelings.

We do not mean:

-- teacher is restrained
-- teacher does not allow students to freely express themselves
-- teacher avoids situations which might deviate from what she has planned for the class to do

Examples:

1. Teacher notices that Michael appears to be interested in a small spider that is on his desk. She tells him to throw the spider out the window and get back to his work.
2. A tree is being cut down across the street from the school. The children appear very interested in this activity. The teacher, however, asks the studetrs to stay away from the window and continue their reading.

STEREOTYPING (T)

We mean:

-- teacher lebels and judges children in terms of characteristics such as socio-economic level, and ethnic background

Examples:

1. Teacher says Asian-American children never misbehave out of respect for "the ancestors."
2. Contained within this classroom were Samoan students. The teacher felt the American and the Samoan culture were so far apart and because of this barrier it was impossible to teach Samoans anything.
3. Teacher has separated students whom she has characterized as educationally handicapped, hyperactive, anti-social and those on medication.

We do not mean:

-- teacher treating students in terms of their individual needs
-- teacher's instruction and behavior being based on students potential

Examples:

1. Teacher uses contract system with students letting each of them proceed at their own rate.
2. When teacher speaks about her students outside of class, she always refers to individual students rather than groups of students.

STRUCTURING (T)

We mean:

-- reviewing a lesson from the previous day or at the end of a lesson
-- at the beginning of a lesson, the teacher tells the class what it will learn
-- teacher outlines on board the main topics of a lesson
-- teacher signals that one part of a lesson has been completed and another is to begin
-- teacher underscores important points by pointing to them
-- teacher summarizes a lesson by tying main points together

Examples:

1. "OK class, let's review what we talked about yesterday. First, we learned that ecology is a science; second we learned that ecology deals with both living and non-living things; and third we looked at some of the kinds of relationships between living and non-living things in the environment."

2. "After I review what you've read today, I'm going to ask you a few questions about ecosystems."

3. "Let's summarize the three kinds of relationships that we've been talking about: Predator-prey, benefit-no difference, and mutual benefit."

We do not mean:

-- beginning a lesson without organizing students thinking in that direction
-- abruptly moving from one activity within a lesson to another without clarification
-- picking up at a point in a lesson for the day before and plunging ahead without summarizing previous day's work

Examples:

1. "Okay. Get out your readers. Let's go! Tommy, you read first, please."

2. Teacher inerrupts a student reading with, "That's enough. We're running out of time. Take out your workbooks and answer the questions for this story on page 32."

   Student says, "But we haven't finished reading it yet!"

3. At the beginning of a reading group's session with her, the teacher says, "I want you to fill out the ditto sheets for yesterday's story. Silently, please."

TEACHER MADE MATERIALS (T)

We mean:

-- the teacher provides more than textbooks materials and arranges for their use by the students
-- evidence of planning and preparation

Examples:

1. The teacher claimed that she did not like state materials, so she developed her own.

2. During social studies class, the students used an insturctional unit created by the teacher.

3. Around the room were four learning stations. Each contained tasks created by the teacher along with appropriate equipment.

We do not mean:

-- lack of preparation of materials
-- learning activity stopped due to lack of the proper instructional materials

Examples:

1. The teacher uses only textbook materials when teaching Math and Reading.

2. The teacher did not know how to answer a student's question concerning a Math problem. The teacher tells the student that tomorrow, others in the class will be working on examples like the one he is asking about and that he should hold off his question until then.

TIME FIXEDNESS (T)

We mean:

-- teacher emphasizes being prompt
-- teacher begins and ends activities according to the clock rather than student interest

Examples:

1. It is 8:15. The teacher has just come into the classroom. Dick runs happily to the teacher and says, "I've finished, I've finished!" The teacher says to him, looking at his paper, "Oh that's yesterday's work, I've already corrected it. You turn it in on time next time, and I'll correct it."

2. The class is working on a science lesson, filling in the answers on dittoed sheets. The teacher began the lesson by telling the students they would have 30 minutes to finish it. Then she interrupts them several times. "It's already ten-fifteen. You've only got eight minutes left. One minute to go, and those papers have to be done."

3. Teacher has a daily class schedule posted on the board. Each subject is given a specific time, e.g., Math - 9:30 - 10:00, Recess - 10:00 - 10:15, etc. etc.

We do not mean:

-- flexibility in time allotment
-- teacher begins and ends lessons according to interest or need

Examples:

1. The teacher passes out an exercise on division. He explains it to the class, and then tells them, "Please come up and let me know when you're finished, so I can give you a "math mystery" paper."

2. The teacher plans lessons in rough time blocks, such as morning or afternoon. She does not set the schedule according to exact times.

WAITING (T)

We mean:

-- after asking a question, teacher waits in silence while student thinks about answer

-- after a student responds to her question, teacher waits in silence before reacting

Examples:

1. "Monica, how do you suppose the air escaped from the plastic bag?" Monica appears to be thinking, and teacher waits patiently for about 7 seconds. Monica then answers with, "It must have gone out through the hole in the bottom."
2. There is much discussion among the other students as they talk about Monica's answer. The teacher waits for about 10 seconds and allows them to talk. Then, she says, "Can anyone give us another possible explanation?"

We do not mean:

-- teacher not waiting sufficiently for an answer, but giving it herself or moving to another student for the answer

-- cutting off class discussion or reaction to a student's answer

Examples:

1. Teacher: "Charles, how much is 13 + 8? Do you know?" Cynthia is raising her hand. "Okay, Cynthia, you tell us."

2. Cynthia: "20." The class giggles, and students turn to each other to talk. The noise level goes up. Teacher: "All right, no talking. Next problem, Tom. How much is 23 + 8?"

WARMTH (T)

What we mean:

- social closeness
- teacher seeks contact with students, talks informally with them
- touches them
- walks with students
- the teacher uses affectionate words with children
- the teacher smiles and has a pleasant look on her face

Examples:

1. Mrs Alexander is walking to class with a group of girls. She has her arms around two girls and is talking and laughing with the group.

2. When Mr. Daley comes to help a child, he bends over or squats down by the child and puts his hand on the child's arm or shoulder as he talks.

3. The teacher is concerned about Mark having read a page. She says "What page did you read, dear?"

We do not mean:

- physical punishment, harassing, antagonism, avoidance of physical contact

Examples:

1. When children approach the teacher or touch her, she draws back and avoids contact with them.

2. As the teacher moves around the room to help students, she remains standing with her arms folded while she talks to the students.

3. Mr. Lowry often has a frown on his face when he looks at the class. Occasionally he forces a small smile, as if he knows he ought to, but isn't really happy.

4. As soon as the class is over, Mrs. Burk shuts the classroom door, and walks to the teacher's room. She never spends any time with the students outside of the class time.